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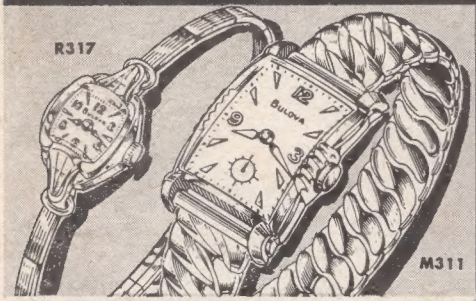

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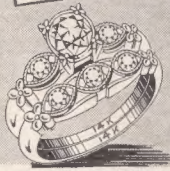

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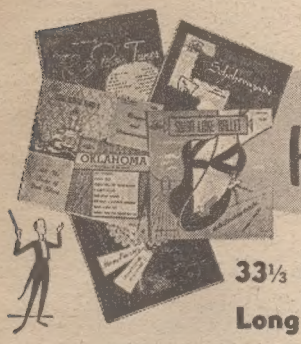


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1344 STRAUSS, R.: DON JUAN and OTHER SELECTIONS
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1354 THE FLYING DUTCHMAN (Wagner) Excerpts
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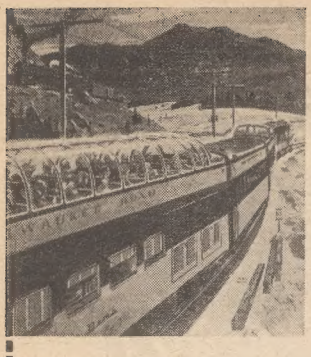

# RAILROAD

MAGAZINE

*Originally Railroad Man's Magazine, founded 1906*

***September, 1953 Vol. 61, No. 4 35 Cents***

**Cover:** *Milwaukee "Dome" Train*

**By:** *Herb Mott*

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# RAILROADS ON BANK NOTES

L. MILES RAISIG

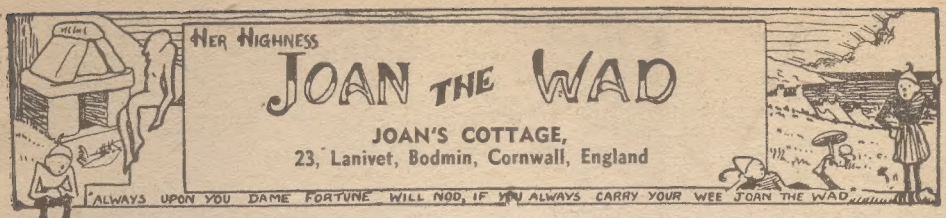
IN AMERICA today, it is often said and written that except for the fields of science and space travel there are no new frontiers, no new worlds to conquer. We beg to disagree, and freely offer to every collector of railroadiana and every student of railroad history, a virgin field, untapped, almost unknown, and bursting with collecting possibilities.

Few persons other than confirmed collectors of obsolete paper money, students of the graphic arts, and serious antique collectors, are aware that one of the cheapest, most fertile, and abundant sources of American history lies in the private bank notes issued within the United States between 1800 and 1865.

But what of railroads, locomotives, trains? By the time our forebears became interested in the practicability and economy of the steam locomotive, bank note engraving was already a highly skilled, advanced, competitive business, employing some of the finest American engravers on wood, copper, stone and steel. The former colonies had fused into a raw, furiously growing democracy, feeling its new power and thrusting ever westward for new and richer opportunities.

Each new move, each new enterprise, required credit; new banking companies, with little specie but plenty of paper, mushroomed up over night. The banks might be dangerously near insolvency, facing their creditors and the future only on their managers' lie-ability, but their paper was crisp and elegant and new, representing not only the best and latest in American life and living, but a bewildering array of portraits and events from Roman gods and senators to Napoleon, to American generals and presidents, and from Franklin experimenting with electricity to the Battle of New Orleans and beyond.

The railroad came to America; it stayed, grew, became many from one. Immediately its locomotives and trains appeared on the newer issues of private bank notes. The tremendous wave of new internal improvements—turnpikes, canals, and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**WONDERFUL LUCK.** "Would you be so kind as to forward one Joan the Wad History. I am very anxious, as I have heard so much about her. My friend has one and has had wonderful luck since" writes Mrs. Douglas Campbell of 150, Leinster St., St. John, N.B., Canada.

**BUSINESS SAVED.** Mr. Shadrack Charo of Malindi, Kenya, West Africa, writes 12.2.52: " . . . am sending P.O. for One Joan and one Jack for my wife. The one you sent has proved useful. I gave it to my wife who is running a shop. Before that we had decided to close the shop owing to lack of customers, but now the shop runs nicely and I have no hesitation to say that it is due to 'Joan'."

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**LUCK TURNED.** Mrs. K. Raynes of Crown Mines, Johannesburg, S. Africa, writes 22.9.52: " . . . enclose P.O. for a 'Joan the Wad' and also two 'Jack O'-Lanterns'! Have already received a 'J.T.W.' for my husband. We had her one day when his luck turned and he won $336.00. All our faith are in both. Do let me have all three, including History."

HURRY

Daisey Harris of Greensboro, N.C., U.S.A. writes 25.3.53: "I was so thrilled when I received my little Joan and won $40."

G. W. K. Botchey of Agona-Nyakrom, Gold Coast, W. Africa writes 10.11.52: "Four of my companions have won $1,960 since receiving your mascots."

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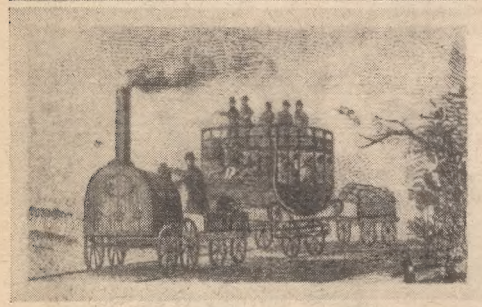
**6, JOAN'S COTTAGE, LANIVET, BODMIN, CORNWALL, ENGLAND**

and I will send you both History and Mascot.



**ENLARGEMENT, top, from Tecumseh note shows John Bull type locomotive. Below it is Planet type**

railroads—brought forth bank notes like snowflakes, and the rapid and inevitable American progress in locomotive building was quickly reproduced on the circulating currency. From about 1835, through hard times and good, through the War with Mexico and the War Between the States, there was kept a continuous, thoroughly documented picture-story of every major type and change in American locomotives and trains. The story ended only in 1866 when private bank notes were taxed out of existence.

In the year 1837, Michigan had just become a state. Its legislators believed completely in internal improvements, and with a collective eye to a large future profit, planned for three major railroads and two canals within the state. With a population of 175,000, and with 68 mail routes, on 41 of which mail was collected and delivered once weekly, Michigan had 61 chartered banks and banking institutions.

The progeny of two of its banks may be seen in the accompanying photographs. It will be noted that the $1 note of the Tecumseh Bank is undated, unsigned, and unnumbered, and that the $2 note of the Bank of Washtenaw is undated. These two notes were never issued, and are in crisp, uncirculated condition, especially chosen for their sharp, clean engraving. Signed and dated notes of these designs were first issued about 1835.

The train on the Washtenaw note is obviously a very early one, and appears to us today as little more than a steam box on wheels dragging a carriage converted to rail travel. The locomotive is of the *Planet* type, originally imported from England, and showing refinements of construction over its predecessor type, the *Rocket*. In the four-wheeled *Rocket*, the larger front wheels had been the drivers, with power being transmitted through rods from outside cylinders. The *Planet's* drivers were placed in the rear, were larger than the front bearing wheels, and power was trans-

**TECUMSEH BANK $1 note, size 3⅛ by 7¼, circa 1837**

INTRODUCING...

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SWITCHMEN
CONDUCTORS
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mitted from inside cylinders by a cranked axle.

THE LOCOMOTIVE which is shown in the central vignette of the $1 note of the Tecumseh Bank probably antedates the *Planet* type, although it appears to be much more advanced. The spark arrester must have been one of the very first in existence; the covered tender and the unusual cowcatcher identify the engine as being the *John Bull* or of the *John Bull* type. It bears the honor of being the first locomotive used in the state of New Jersey, in spite of its British name and origin. The cowcatcher shown is a very rare type, being supported upon the rails by two small wheels.

At this point a word of warning is necessary. To expect to find in bank note vignettes exact replicas or drawings of engineering accuracy of famous locomotives, is to be disappointed. There is only one locomotive known at this time to the author which can be positively identified. This is the *America*, built by the New Castle Manufacturing Company of Delaware, and first used in 1854 on the Philadelphia, Wilmington & Baltimore Railroad. A vignette of this standard type engine appeared on a $5 note of the International Bank, Portland, Maine, as described in a bank note "reporter" of 1863. It is most likely that the vignette has also been used on many other bank notes which were not reported through lack of knowledge or because the notes disappeared quickly from circulation, following the issuing banks' failures.

Counterfeiting and the production of bogus bank notes were so common and widespread between 1830 and 1865 that periodicals, devoted solely to the identification of legal notes and the detection of spurious paper, became necessary business and banking adjuncts. In more or less detailed descriptions the "reporters" gave denominations, vignettes, layouts and colors, to enable even the most naive to identify notes offered as good, bad or indifferent.

Just a casual glance at the "reporters" of the 1850s and the early 1860s will show the enormous number of notes which bore, as a major or minor vignette or as part of a scene, a reproduction of locomotive, tender, and cars. The train was known first as a "brigade of cars," later as "train of cars," and for many a year as "the cars."

Railroading in the beginning years, for passenger and employe alike, was a dirty and dangerous game. The rails were iron straps laid on parallel wooden beams. Often the end of a rail would loosen and curl up, to be caught by a wheel and forced up and through the floor of the car, to the painful injury of the unwary passenger. Such curled-up rails were known technically as "snake-heads," and facetiously as "car-inspectors." Brakes at the beginning were non-existent and trains stopped in four different ways: (1) by running out of steam, (2) by running off the track, (3) by the jamming of wood blocks into the spokes of the locomotives wheels, and (4) by the sheer muscular effort of employes and passengers who laid hold of the train and pulled it to a stop.

Good original lithographs or engravings of American locomotives and trains, such as the Currier & Ives type, sell for about fifty dollars, and more. Modern copies in sets can be had for about one dollar, but they are *copies*. Real "broken bank" notes, such as the Washtenaw and Tecumseh examples shown here, can be purchased for pennies, and are contemporary with the trains and engines they depict. Here, indeed, is true American railroadiana, just begging to be bought, collected, and studied. Almost every coin dealer carries a supply of "broken bank" notes, and can usually quickly obtain more. The classified advertisement sections in the science magazines offer many leads to coin dealers who sell by mail.

Just one last word of advice. Bank note engravers didn't know too much about railroading or locomotive building. Their vignettes are marvels of drawing much in little spaces, and are, on the whole, scientifically and architecturally correct. Don't look for *bolt-heads*—do look for *types*—and GOOD HUNTING!

# "You don't make milk by stinting on the feed"

Thus simply, Secretary of Commerce Weeks stated in a recent address a profound business truth which is frequently overlooked.

"If the regulated industries are to render their full services to the nation," the Secretary said, "it is my judgment that the regulatory bodies must allow earnings adequate to attract and support the equity capital they can use effectively for economies, improvement and growth." And he observed further that "the courage and inventiveness that risks great sums for improvements and economies in the future does not naturally emerge from men who have not the credit to raise the money nor the assurance that they would be allowed a return on it when their dreams come true."

That has been the situation of the railroads. Earning a return on their investment which over the years has averaged less than 4 per cent, the railroads have not found it possible to attract the equity capital they could "use effectively for economies, improvement and growth."

Nevertheless, by drawing heavily on their reserves and by sharply increasing their obligations for the purchase of equipment on the installment plan, the railroads have put into service since the end of World War II more than 500,000 freight cars and almost 18,000 new diesel-electric locomotive units. For these and other improvements they have spent more than a billion dollars a year.

Such improvements mean not only better service to the public but also more efficient railroad operation, with costs and rates lower than would otherwise have been necessary. And as research opens up other possibilities, there will be other opportunities for railroads to make improvements which will mean still better service at the lowest possible cost.

To take advantage of these opportunities, the railroads will need not only "the courage and inventiveness that risks great sums for improvements and economies in the future," as Secretary Weeks said, but also the cash and the credit which, in the long run, can come only from "not stinting on the feed."

**ASSOCIATION OF AMERICAN RAILROADS**
WASHINGTON 6, D. C.

*You'll enjoy THE RAILROAD HOUR every Monday evening on NBC.*

# THE AMAZING

FRANK P. DONOVAN, JR.

IT WAS a cold winter day in Iowa as a long freight whistled for a crossing where an automobile had halted to let the approaching train go by. At the wheel was a Hawkeye lad with some visitors from the East. The outlanders asked the driver the name of the railroad, and he perfunctorily replied, "Chicago Great Western." They had never heard of that road and showed little interest. Presently the diesel locomotive thundered by—one unit, a second, a third, a fourth . . . Still the easterners, used to seeing four-unit engines on the Pennsy and the New York Central, were unconcerned. But they rubbed their eyes in amazement when a fifth unit groaned by, then a sixth and finally a seventh. They

# GREAT WESTERN

had never seen anything like that. They started to count the cars, but after getting up to 150 they gave up.

Obviously a seven-unit diesel packing 10,500 hp. is a rare sight anywhere. But five- and six-unit jobs are not uncommon, and long mainline freights are the rule, not the exception. They are just some of the distinguishing characteristics of this little-known 1400-mile railroad in the Midwest. Others would include radio-communication in cabs and cabooses and between trains and stations, modernized yards, new stations and complete dieselization of motive power. Small wonder on-line people refer to it as the "amazing" Great Western.

Indeed, the whole history of the rail-

road is fraught with unusual and strong-willed men, men who pioneered in new developments such as the operation of rail-motor cars, train-plane coordination, modern shop facilities, truck-trailer haulage on flatcars, and widespread use of diesel power. Before going into the CGW's colorful and checkered history, however, let us continue with the road as it is today. The Chicago Great Western is one of the so-called Granger roads, a Johnny-come-lately, serving Illinois, Iowa, Minnesota, Missouri and to a very limited extent, Kansas and Nebraska. In nearly every case other well-entrenched trunk lines preceded it in hotly competitive regions of the Midwest. Actually, however, its main lines compare somewhat favorably in regard to mileage.

*Minnesota Historical Society*

**STATE OF MAINER A. B. Stickney was red-headed, independent. When he needed bridge across the Mississippi, he first completed it, then asked the government's permission to build it**

The CGW has the shortest trackage between St. Paul and Omaha, the second shortest between the Twin Cities and Kansas City, and the third between the Twin Cities and Chicago. But it does not boast of CTC, and in most of its important metropolitan centers the road uses the tracks of other carriers. This, coupled with the fact that its territory is served by many larger and wealthier roads, makes the Corn Belt Route, as it was formerly called, vulnerable to competition. Take, for example, between Chicago and the Twin Cities. There are four other roads competing for freight from the Windy City to Minneapolis-St. Paul. There is also a joint route via Albert Lea, Minnesota, making a fifth. In spite of this, CGW is rendering a good account of itself. While it may never be in the blue chip class, the road is probably in better financial shape than it has ever been. Physically, its main lines are in good condition, although some of its branches are somewhat run down. These, however, are being rehabilitated as time and finances permit.

Today the CGW is almost exclusively a freight road. Only the hearty, dyed-in-the-wool railfan would ever attempt to go from Chicago to the Twin Cities by this carrier. To begin with, the trains are local, all-coach night runs. On top of this there is a two-hour layover at Oelwein, Ia., around midnight, no matter which direction you may be going. From the Twin Cities to Omaha, or to Kansas City, the service is without change; but it's still a tedious night coach ride even if the cars are air-conditioned and the seats have antimacassars. All branch lines are entirely given over to freight.

A glance at the map shows how the Great Western serves the heart of America's breadbasket. With Oelwein as its center, its lines run, like the four pointers of a compass, through fertile prairie land. Since it serves primarily a farming country, it is not surprising that about 43 percent of its originating tonnage is composed of agricultural and animal products. Manufactured articles account for some

38 percent of the balance, with products of mines 17 percent and both forest products and lcl. only 1 percent.

A noticeable characteristic of many of the road's time freights is the relative frequency of refrigerator cars. The reason for this is that nearly 5 percent of the CGW's freight revenue comes from fresh meats. Back when the railroad was being built, its first president, A. B. Stickney, founded the now-famous St. Paul Union Stockyards. To this day that cattle and packing center is served exclusively by the Great Western, and the road naturally gets a very high share of the meat traffic. There are also on-line packing houses at Austin, Minnesota; Mason City, Waterloo and Des Moines, Iowa; St. Joseph, Missouri; Omaha, Nebraska, and a half dozen other communities.

ANOTHER item peculiar to the Corn Belt Route is the long strings of flatcars hauling truck-trailers. Nightly these highway vehicles roll on flats between Chicago and St. Paul; Chicago and Kansas City, and Chicago and Council Bluffs. Some of the trailers go only to Des Moines, other may go from St. Paul to Omaha; but whatever their destination they are indicative of the company's aggressive policy to get more business.

This aggressiveness is carried over to the rank and file of the road's 3000 employes. The engine and train crews in particular are a two-fisted, hard-working breed of men, good railroaders all. They don't have to worry about fastidious passengers in streamlined limiteds, or about starting trains in such a way that coffee won't spill in the diners, or sleepers be jolted in their berths. All Pullman and dining service was withdrawn a few years ago, and freight now rules supreme. The big job is to get tonnage over the road, to wheel heavy freights from division to division with dispatch. Most CGW employes are veterans, and they have seen the road through ups and downs; receivership and rehabilitation; maintenance cut to the bone; and, in recent years, an all-out comeback. It's been a grim fight, but at no time were the management and men ready to take the count. The story of the Chicago Great Western is a saga in managerial ingenuity from the days of Alpheus Beede Stickney to William Neal Deramus, III.

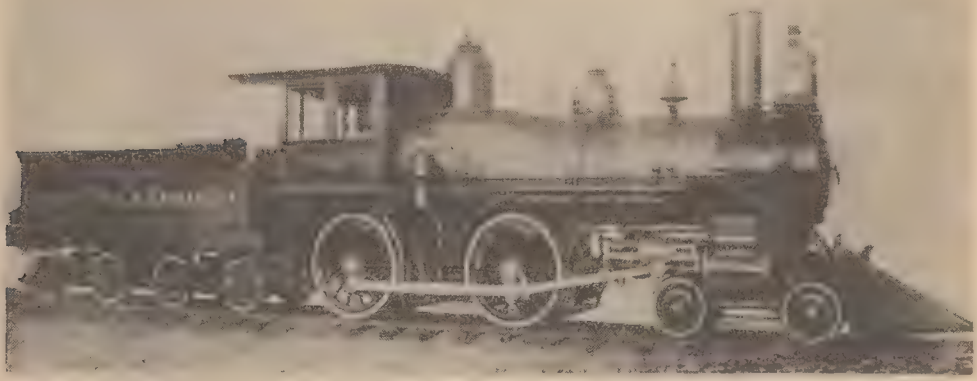
It was Stickney, an ex-schoolteacher and young lawyer, who conceived, built and headed virtually every mile of the present-day CGW. A State of Mainer, he came westward to Minnesota upon reaching his majority and soon became interested in railroad construction and promotion. Stickney was aggressive and a good fighter. As one of his antagonists put it, "The trouble with him was that

OUT OF ST PAUL. Chicago Great Western's Train 5 crosses Mississippi on its way to Kansas City. Lift-span bridge is owned by CGW

**BALDWIN COMPOUND** was outshopped in October 1910, later sold to Carolina, Clinchfield & Ohio. Pipe the cowcatcher and leading truck so far forward

**TANDEM COMPOUND** Prairie type was once highly favored throughout Midwest. Those operated by CGW were eventually converted to single expansion. No. 264, above, was Brooks-built in 1904. Neat, high-wheeled Ten-Wheeler, below, was Baldwin product of 1910

PREDECESSOR of the Chicago Great Western, Chicago, St. Paul & Kansas City, owned this product of the Cooke Locomotive & Machine Co. CGW also took over Maple Leaf emblem



AMERICAN type was also originally owned by predecessor CStP&KC. An 1888 product of Rhode Island Locomotive Works, she was renumbered from 120 to 74 when CGW took over. Cooke engine, below, also built in 1888, followed same path from CStP&KC to CGW

SWEEP OF TRACK into St. Paul Union Station was dominated by Minneapolis-bound train with Pacific 931 on head end. Made in 1948, photo was taken from roof of St. Paul Union Depot Co's engine house

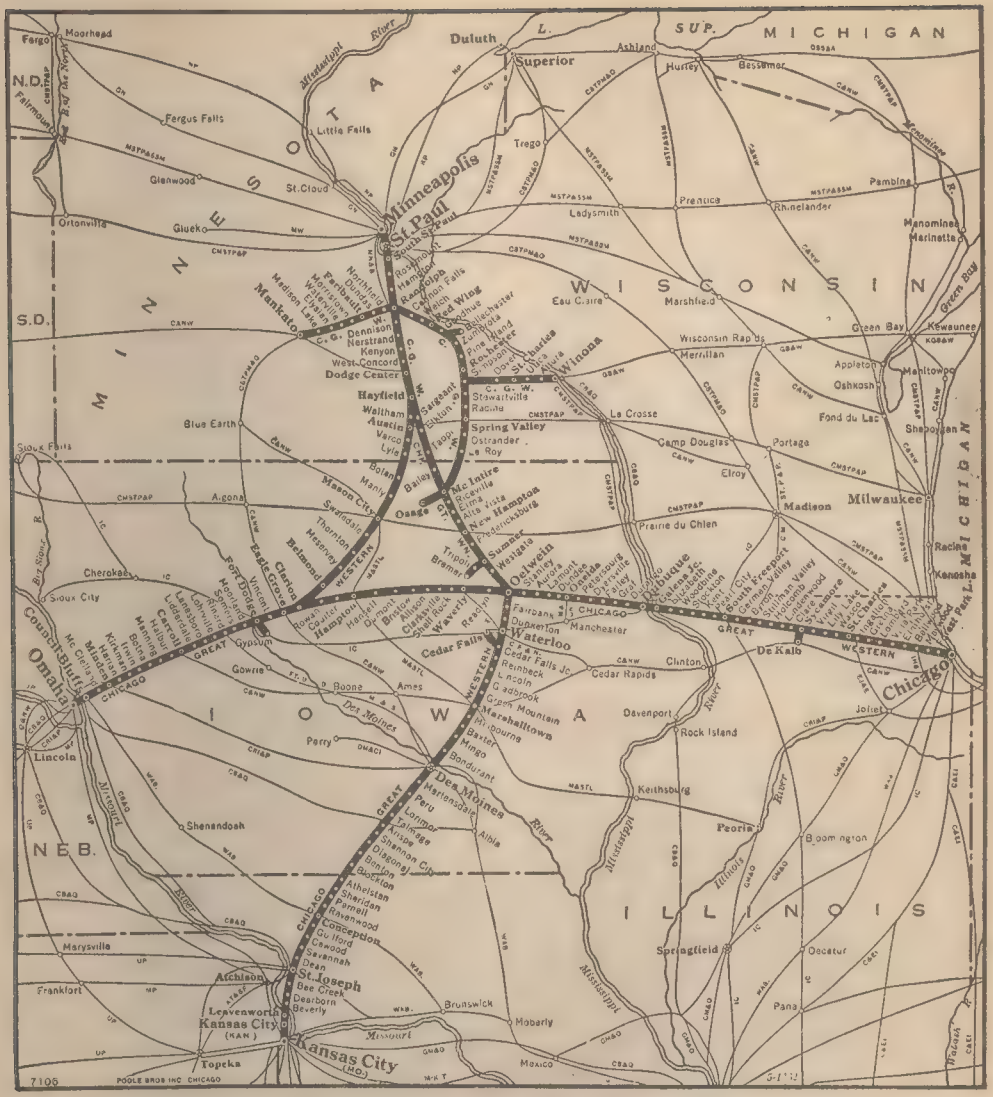
you could not always tell, or even approximately guess, where he would be likely to turn up after you thought you had him licked." Along with these traits he had a keen sense of humor.

A story is told by the late Edwin W. Winter, formerly general manager of the Omaha Road and later president of the Northern Pacific, illustrating Stickney's wit. Stickney, at that time, operated the North Wisconsin Railway, of which "the Omaha" was about to get control. The North Wisconsin road had a wreck under the Stickney administration, and the Winters people were making sport of the mishap. But their merriment ended when the following message came over the wire to Winter.

> "I understand you have leased the North Wisconsin Railway for twelve o'clock tonight. I also understand the North Wisconsin train is very much in the ditch near Richmond. You can take them both as quick as you please."
>
> Alpheus B. Stickney"

Stickney's railroad experience also included a hitch with the St. Paul, Minneapolis & Manitoba (now Great Northern) as superintendent of construction. This was followed by a stint with the Canadian Pacific in much the same capacity. Early in the Eighties he became interested in building an independent line from St. Paul to the south. Acquiring the charter of the dormant Minnesota & Northwestern (issued back in 1854), he completed that road from St. Paul to Manly Junction, Iowa, in 1885. At the Junction the M&NW connected with the Iowa Central. All the while, however, the energetic Stickney had his eyes set on Chicago and Kansas City. It was obvious, too, that the name Minnesota & Northwestern was misleading, for Manly is southwest of St. Paul, and the proposed extensions were to the east and south.

To further his expansion plans, Stickney and his associates incorporated the Chicago, St. Paul & Kansas City Railway in 1886. This new road soon took over the property of the Minnesota & North-




western and proceeded to link all the cities in its title. In 1888 the through line from St. Paul to Chicago was in operation. Most of the route was newly constructed with the exception of about fifteen miles from Dubuque, Iowa, to Aiken, Ill., where trackage rights were had over the Illinois Central and the Burlington. The Stickney road entered Chicago from Forest Park over what is now the Baltimore & Ohio Chicago Terminal Railroad. An unusual feature on this extension is the Winston Tunnel, just short of a half-mile long, in western Illinois. It is the longest, and perhaps the only, tunnel in the state. Until the coming of the diesels a blower system was necessary to keep the long bore clear of noxious gasses.

On the Kansas City line much of the cater-cornered route across Iowa had been constructed by "The Old Diagonal," corporately known as the Wisconsin, Iowa & Nebraska Railway. Indeed, the Stickney-inspired Chicago, St. Paul & Kansas City purchased The Old Diagonal when the latter was a going concern with trains running between Des Moines and Waterloo, and a short branch serving Cedar

SIX UNIT DIESEL at Graf, Iowa, heading 190 loads. Heavy use of locomotives like this is "secret" of how CGW hauls heaviest tonnage per train of any railroad in the country

Falls. The CStP&KC spanned the gap between Waterloo and Oelwein on the north, and by the end of 1888 reached St. Joseph, Missouri, 158 miles from Des Moines on the south. With the leasing of the Leavenworth & St. Joseph Railway in 1891, plus certain trackage rights, the Stickney road had trains running into Kansas City.

Meanwhile, A. B. Stickney had more plans for continued expansion, but near-insolvency temporarily halted further track-laying. He, however, succeeded in reorganizing the road without a receiver. A new company, the Chicago Great Western Railway, was incorporated in 1892 to take over all the property of the CStP&KC. By an ingenious method of getting the security holders, most of whom resided in England, to exchange bonds of the old company for stocks of the new, the road emerged without any mortgage indebtedness. At that time the CGW was said to have been the only American trunk line without bonded indebtedness. An unusual feature of the reorganization was the issuance by the company of debenture stock, along with three other kinds of security.

A bitter foe of discrimination, including rebating and rate-cutting, Stickney found time to write a book called *The Railway Program* (1892) attacking these vices. Probably the most outspoken volume ever penned by a railroad president, the work did much to further the cause for better regulation. The whole subject is more or less academic today, but in the '90s shippers often sought rate concessions and railroads were sometimes bludgeoned into acceding to their requests.

A man of action, outspoken and fearless, the red-headed A. B. Stickney often blazed his own trail. When he wanted a railroad bridge across the Mississippi to St. Paul he completed the structure and then asked the Government for permission to build it. The War Department acquiesced! He is said to have been the first to introduce compartment sleeping cars west of Chicago and to adopt the *a la carte* system in dining-car service.

RAILROADING in those days was a rugged occupation. Contemporary accounts relate how cowboy attendants on stock trains between St. Paul and Chicago whiled away their time shooting glass insulators on telegraph poles. They often rode atop the cattle cars, and not a few were crack marksmen. Company linemen were kept busy repairing the damage. For many years, too, the Great Western was a haven for boomers. If a man could not hire out on the larger roads like the Milwaukee, North Western or the Burlington, he hit the "Red Stack," as the CGW was known because of the distinctive coloring of its smokestacks. It was often said of Great Western trains that they never had the same crew twice.

One of the principal shortcomings of the road was that it did not have "friendly" connections. Many overtures were made by CGW officials for strong traffic alliances but generally to little avail. Before the turn of the century Stickney rode with the bearded James J. Hill, head of the Great Northern, in the former's private car. Stickney was desirous of getting the Empire Builder to use his line as a connecting link between St. Paul and Chicago for Great Northern trains going to and from the West Coast. Jim Hill had not purchased an interest in the Burlington at that time and was open to suggestion. As the train sped along, Hill, as was his way, took a little book from his vest pocket and with great gravity looked over some notes. Finally he raised his leonine head and quoted a sizeable figure as the ton-miles hauled over a division of his road.

With equal austerity A. B. Stickney whipped out his pocket memorandum, pondered a few minutes, and quoted another figure—considerably in excess of

**THE BAND PLAYED ON.** In this undated photograph, railroad workers listen as rail-borne musicians in Union Army uniforms strike up an air. Road being built was St. Paul, Minneapolis & Manitoba, later to be part of Great Northern. Stretch of fill here was just outside Fort Assinaboine

**FAMED RED BIRD** was one result of CGW president Sam Felton's trip to British Isles. Impressed by clean lines, colorful coaching stock of English trains, he had Oelwein shops make him a near duplicate

Hill's—as being the current ton-miles moved over the Great Western.

"Stickney, you're lying," said the Empire Builder.

"So are you, Jim," retorted the Great Western president. After that both men resumed looking out the window; and as we know, the Great Northern found a connecting link elsewhere. Perhaps it was best the two forceful and strong-willed executives remained apart and that their interests did not overlap.

By 1900 the Chicago Great Western obtained stock control of the Wisconsin, Minnesota & Pacific, operating between Red Wing and Mankato, Minn. via Randolph. Shortly afterward it purchased the Duluth, Red Wing & Southern, extending from Red Wing to Zumbrota, Minnesota; and the Winona & Western, running from Osage, Iowa, to Winona, Minnesota, with a branch to Rochester. Soon the 26-mile gap from Zumbrota to Rochester was spanned, giving the CGW a north-and-south outlet to the latter town, subsequently made famous by the Mayo Clinic.

There was still one item of unfinished business on Stickney's mind, and that was to put his Maple Leaf Route, as it was then called, into Omaha. Some years earlier the Stickney interests had acquired control of the Mason City & Fort Dodge Railway, connecting the two Iowa cities in its name. Extensions were pushed to the north, completing the Mason City-Manly Junction link in 1901; and two years afterward the 133-mile route from Fort Dodge to Council Bluffs was opened with trackage rights into Omaha. Building this line entailed crossing the Des Moines River on a lofty bridge at Fort Dodge. The 2588-foot structure is said to be the second largest railway bridge in Iowa.

The CGW was now completed as we see it today with the exception of the south side of the triangle in the center of the system, so conspicuous on the map. The Clarion-Oelwein segment was built piecemeal and finally completed in 1904. A few years afterward the road's Oelwein shops had a new boss, a young man by the name of Walter P. Chrysler, fresh from the Colorado & Southern. In his autobiography exclaimed Chrysler: "They were the biggest shops I had ever seen!" He also commented on the huge cranes and modern transfer tables. The gifted machinist soon rose to be superintendent of motive power on the CGW and, incidentally, the owner of Oelwein's first horseless carriage—a Locomobile. Later Chrysler left the Maple Leaf Route to become works manager of the American Locomotive Company's Pittsburgh plant.

The "strong face" of Stickney, as Chrysler put it, was not seen on the Great Western much longer. The panic of 1907 put the road into receivership, with Stickney as a co-receiver. In 1909, however, he was out of control; and with the forma-

**EXPERIMENTALS. With not too many hidebound traditions, CGW has always been noted for willingness to try out new ideas, some of which are shown on this page. Right: Ungainly White rail motor car was snapped at Marshalltown, Ia. about 1924. McKeen Motor Cars, center, were quite a success for a while. This one was pictured at Fort Dodge, Ia. And at bottom, the Blue Bird, 3-unit motor train built on old McKeen Car underframes at Oelwein Shops**

tion of a new company, the Chicago Great Western *Railroad*, Samuel M. Felton became president. Under Felton's sixteen-year regime as president the road secured fresh capital and underwent a complete rehabilitation.

The Felton administration was responsible for overhauling motive power and acquiring many new locomotives. During Stickney's regime the *Prairie* type (2-6-2) engine

*L. A. Stuckey*

PASSENGERS have stayed away from CGW in droves, so road has cut service almost to the bone. This pre-diesel photo was taken near St. Paul Union Depot; today only a hardy railfan would take the CGW from Chicago to Twin Cities

Stuckey
**HEAD END** business at St. Paul. K2a Pacific type was built by Alco in 1903. Look at the CGW roster nowadays and you'll find diesel-electrics and a couple of gas jobs

*Basil W. Koob*

ANOTHER CGW experiment, and one that seems to be paying off, is shown in this picture—several flats loaded with highway trailers are cut in behind locomotive. Photo was taken at Des Moines River viaduct

was the most popular on the system. Although *Prairies* are generally thought of as freight locomotives, many were used in passenger service. But Sam Felton changed this; he rebuilt some 2-6-2s into *Pacifics,* and many that remained were converted from compound to simple expansion and superheated. Some forty *Consolidations* were purchased shortly after he assumed control. The real eye-openers, however, were ten *Mallet* compounds employed to wheel heavy freights over the one percent grades between Stockton, Ill. and Oelwein, Ia. They were of a 2-6-6-2 wheel arrangement, with a tractive force of 81,175 pounds.

To emphasize fast freight service, two pages of the October 1, 1910, timetable were devoted to "Schedules of Through Freight Trains." This novel feature, after a lapse of four decades, was re-introduced in the road's passenger timecard effective April 27, 1952. In the same 1910 folder much emphasis was placed on the "New Wharton Switch," which featured a so-called "hump" rail opposite the point rail. At a certain point the hump rail inclined sufficiently to gradually raise the car wheel so that the flange would pass over the main track onto the side track as guided by the point rail. Another feature of the Wharton Switch was the use of a semaphore signal. To quote the advertisement:

> "The position of the switch is clearly indicated by the dwarf semaphore switch signal which takes the place of the commonly used target signal, this being in line with the best signal practice, as it furnishes a position signal rather than a target for daylight service."

Although the hump rails have long since been discarded, many switches still have the semaphore signal, giving the Great Western an appearance unlike that of its neighboring roads.

FELTON saw to it that millions went into improving the right-of-way. He block-signaled the line between Chicago and Oelwein, and built a new bridge across the Mississippi at St. Paul. Much more noticeable than these improvements was the widespread use of rail motorcars. The annual report, ended June 30, 1911, shows three 200-hp. McKeen gasoline motor units on the roster. That was just a start; many more were in use in subsequent years. In 1924 the pioneering CGW took delivery of Electro-Motive's first gas-electric car, the M-300. It was initiated into service by hauling General Manager C. L. Hinkle's 85-ton business car from Chicago to Oelwein. The EMD people held their breath while the M-300 roared up the long Farley grade west of Dubuque, Iowa. But the doodlebug pulled the big car over the crest and up and down the sawtooth hills into Oelwein. After that CGW was sold on gas-electrics.

Meanwhile, more new developments were in the offing. On a trip abroad Sam Felton took a liking to the trim lines of English locomotives. Could it have been the clean coaching stock and well-groomed engines of John Bull's Great Western? We have no way of knowing. We do know the Old Man came back to the states and had Oelwein streamline one of his *Pacifics.* More than that he had it painted red and gold, with cars to match. When Engine No. 916 hit the road with its polished driving rods and burnished cylinder heads, concealed pipes and glistening red cars, it created a sensation. The semi-streamliner was put into service on a non-stop run between the Twin Cities and Rochester, Minnesota. Appropriately called the *Red Bird,* it pleased Felton no end.

Came now the ominous year of 1929. Before the stockmarket crash, two amazing CGW innovations occurred. The first was a companion train to the Venetian-red consist on the 'Cities-Rochester run. Called the *Blue Bird,* it not only differed in color but also in general appearance, from trucks to ceiling. A three-unit, de luxe gas-electric train made from the underframes of the old McKeen cars, the *Blue Bird* fluttered into the limelight on the CGW right-of-way, in the newspapers and in the trade press. The headend car, powered by a six-cylinder, 300-hp. EMD

engine, had an RPO and a baggage compartment. The middle unit, a 74-passenger coach, had deep seats, wide aisles and large windows. But the ohs and ahs were reserved for the last car, a parlor-observation-club unit with a rounded end like today's streamliners. Low-back reed chairs, deep yielding Wilton carpets and ornamental lamps made it the last word in travel splendor. Two Pullman sections were provided for the comfort of people in ill health going to the Mayo Clinic.

him to the airport for the 9:45 plane to St. Louis, arriving at that city at 1:00 p. m. The Cleveland flight, however, did not leave until 4:00 p. m.; it arrived at the Forest City three hours and forty-five minutes later. The *Great Western Magazine* carried a full-cover ad of this new service, as did the road's timetables. But the CGW's pioneer attempt at air-rail coordination was not succesful, and it was soon discontinued.

The *Blue Bird* was not a success, either, due to curtailed travel habits resulting

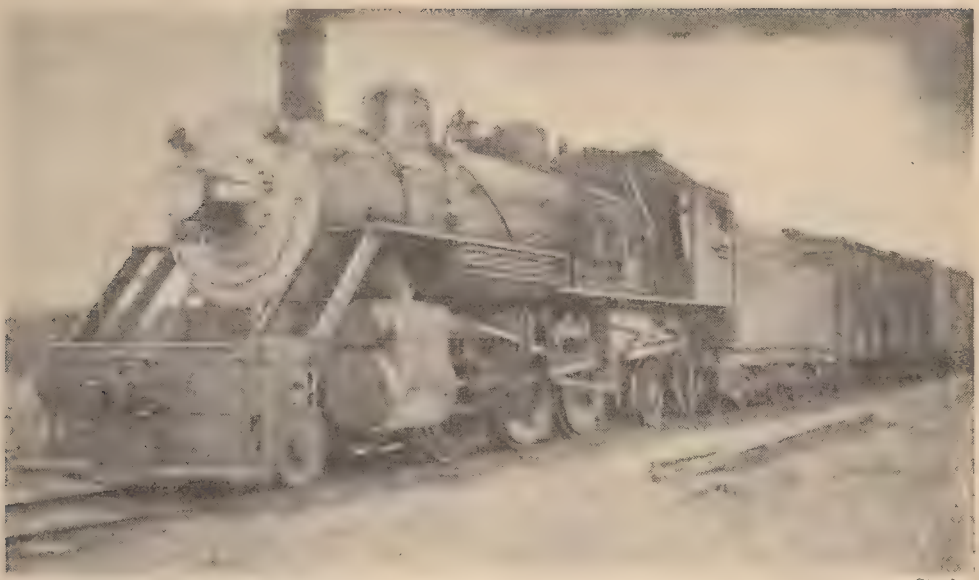
*I. W. Saunders*

**STEAM GOAT** worked in the yard at Dubuque, Iowa. Above, right: Once-ubiquitous Prairie-type, No. 272 in this case, at Oelwein. Right, below: Ten-Wheeler 509 on passenger train

The other innovation was a train-plane hookup patterned after the PRR-Santa Fe air-rail service just inaugurated in conjunction with the Transcontinental Air Transport (The Lindbergh Line). The Great Western Alliance was with Universal Air Lines at Chicago. Through-ticketing arrangements and a bus transfer from Grand Central to the Municipal Airport made it possible for CGW patrons to fly to St. Louis or to Cleveland by UAL tri-motor planes. One took the road's crack *Legionnaire* from Minneapolis, for example, at 7:45 p. m. and arrived in the Windy City at 8:15 the next morning. A waiting bus ferried

from the Great Depression, along with severe automobile and bus competition on the short Twin Cities-Rochester run. The CGW used every trick in the bag to retain its dwindling passenger business. In 1935, for example, it provided tourist-Pullman service between Chicago and the Twin Cities at coach fare. A coach ticket plus the cost of a berth did the trick. The cut-rate tariff met with intense opposition from competing rail lines, and had to be withdrawn.

While there is little CGW passenger service today, the fact remains that the road once operated an abundance of through trains with dining, sleeper and



*Stuckey*

parlor-car facilities. Trains like the *Great Western Limited*, later called *The Legionnaire*, and even later *The Minnesotan*, held their own in Chicago-Twin City operation. Probably the heaviest train of all, however, was the *Mill Cities Limited*, linking Minneapolis-St. Paul with Kansas City. At least three Pullmans were generally in the consist, and five were by no means uncommon either.

Throughout the years the comparatively small Iowa town of Oelwein assumed an importance to Great Western travelers out of all proportion to its size. Why? Because all through trains, except those from the Twin Cities to Omaha, stopped there to set out and/or add sleepers or coaches, generally both. Usual-

*McCord*

ly this shunting was done around midnight, and it took a hardy traveler indeed to sleep through Oelwein.

THE DEPRESSION years left their mark on the CGW, as they did on all American railroads. Nathaniel L. Howard had succeeded Felton to the presidency in 1925, and late in 1929 the former gave way to Victor V. Boatner. Next (in 1931) came Patrick H. Joyce, a former railway supply man. The plight of the road was so serious that it went into receivership in 1935, but five years afterward was reorganized as the Chicago Great Western *Railway*. In the CGW's corporate history this is known as the *second* Great Western Railway, since Stickney's company in 1892 had exactly the same name.

Presidents came and went on the Great Western, and many of them are hardly remembered today outside railroad circles. In contrast, the road had its full quota of men who once worked for it in other capacities and have achieved lasting fame. Among them, of course, was Walter P. Chrysler. No less important was Frank B. Kellogg, author of the famed Kellogg Pact to outlaw war, who for many years headed the road's legal department. Again, there was Charles H. Mayo, one of the brothers who founded the internationally known Mayo Clinic in Rochester, Minnesota. Dr. Mayo served as consulting surgeon for the railroad. One board member had the distinction of resigning from the Great Western to take office as vice president of the United States during Coolidge's administration. He was the late Charles G. Dawes, and, like Kellogg, was awarded the Nobel Peace Prize. Probably the best known living alumni of the CGW are Sewell L. Avery, the outspoken board chairman of Montgomery Ward, and Ralph Budd, distinguished ex-president of the Burlington and currently board chairman of the Chicago Transit Authority. Mr. Avery served for several years on the Great Western's board of directors, and Mr. Budd started his long railroad career in the CGW's engineering department.

In the second World War the CGW

EXTRA-HEAVY motive power like Texas type 866, had long been CGW tradition, leading up to present-day six and seven-unit diesels. Lla Mikado, above right, had 55,000 pound tractive effort
*McCord*

*McCord*

made a very satisfactory showing in handling heavy defense traffic with its modern *Texas*-type locomotives. Equipped with boosters and modernized with lightweight rods and roller bearings on all drive wheels, they generated a starting tractive force of 97,900 pounds.

The first step in post-war modernization came about when President Harold W. Burtness, who succeeded Joyce in 1946, ordered three 1000-hp. diesel switchers and six 4500-hp. diesel road engines. After that diesels came to stay. With the inauguration of four-unit 6000-hp. road freighters, it became evident that even the *Texas*-type steamers were on the way out.

A change in ownership of the road led to Grant Stauffer's being made president in 1948. His untimely death on March 31, 1949, resulted in Assistant to the President, William N. Deramus III, being elected in his place. Mr. Deramus took office at the age of thirty-three, at that time the youngest Class I railroad president in the country. He came from a railroad family, his father being president of the Kansas City Southern; and an uncle, Louis S. Deramus, formerly having been trustee and chief executive officer of the Monon. A graduate of the University of Michigan and also having an LL.B from Harvard Law School, young Deramus has over a decade of practical railroad experience behind him.

Under Deramus' administration complete dieselization was effected in 1950. Radio communication has been installed in cabs and cabooses. New depots have been erected at Des Moines, Marshalltown, Ford Dodge and Oelwein, Iowa, as well as at many other points on the system. The famous Oelwein shops, so modern in Chrysler's day, have been completely revamped for up-to-date diesel repair. Besides having a new yard, Oelwein now houses most of the road's general offices, although some remain in Chicago. New rail has been laid and hundreds of miles of line re-ballasted. Managerial ingenuity and progressive ideas still characterize the Chicago Great Western.

*James Adams, for Rail Photo Service, 93 Massachusetts Avenue, Boston 15*

ALL HUDSONS were built by Montreal Locomotive Works between 1929 and 1948. Specifications for type are more or less similar throughout, except for engine weights which vary from 355,000 to 369,000 pounds

# Locomotives of the
# CANADIAN PACIFIC

## Steam

| Class | Numbers | Cylinders | Drivers | Pressure | Engine Weight | Tractive Effort | Builder & Date |
|---|---|---|---|---|---|---|---|
| | | | **0-6-0 (Switcher) Type** | | | | |
| U3d | 6212, 6213, 6215, 6220–6222, 6224, 6226–6228, 6230–6232, 6234, 6237, 6239, 6243–6245, 6248, 6249, 6251, 6254, 6255, 6257 | 18 x 26 | 52 | 200 | 143,000 | 28,000 | CPR, 1911-12 |
| U3e | 6260 6271, 6273 6298, 6301 6304 | 18 x 26 | 52 | 200 | 143,000 | 28,000 | CPR, 1912-13 |
| | | | **0-8-0 (Switcher) Type** | | | | |
| V3c | 6904 6911, 6913 | 21 x 28 | 52 | 200 | 201,000 | 40,000 | CPR, 1913 |
| V4a | 6920, 6922, 6924–6926, 6928–6933, 6935 6949 | 22½ x 28 | 58 | 250 | 269,000 | 60,000 | CPR, 1907; Montreal, 1907-10 |
| V5a | 6600 6609 | 22½ x 32 | 58 | 250 | 269,000 | 60,000 | Canadian Loco Co., 1930-31 |
| | | | **0-10-0 (Switcher) Type** | | | | |
| W1a | 6950-6952 | 23½ x 30 | 51 | 200 | 241,000 | 55,000 | CPR, 1914 |
| | | | **2-6-0 (Mogul) Type** | | | | |
| J3d | 3011 | 18 x 24 | 58 | 180 | 131,000 | 21,000 | CPR, 1888 |
| | | | **2-8-0 (Consolidation) Type** | | | | |
| M3b | 3369, 3379, 3387, 3388 | 21 x 28 | 57 | 170 | 169,000 | 31,000 | Alco, 1902 |
| M4a | 3400, 3401, 3403, 3404, 3408, 3409 | 21 x 28 | 58 | 200 | 202,000 | 36,000 | Montreal, 1904 |
| M4b | 3420 | 21 x 28 | 58 | 200 | 202,000 | 36,000 | Montreal, 1904 |
| M4c | 3410, 3415, 3417, 3418 | 21 x 28 | 58 | 200 | 202,000 | 36,000 | Montreal, 1904 |
| M4d | 3421–3423, 3425–3429, 3432–3435, 3437–3440 | 21 x 28 | 58 | 200 | 202,000 | 36,000 | Alco, 1904 |
| M4e | 3441 3443, 3445, 3446, 3448 | 22½ x 28 | 58 | 180 | 202,000 | 36,000 | CPR, 1906 |
| M4f | 3454, 3458, 3460 | 22½ x 28 | 58 | 180 | 202,000 | 36,000 | CPR, 1906 |
| M4g | 3471 3477, 3479 3481, 3484, 3487 3492, 3495, 3496, 3498, 3499, 3503–3511, 3513–3516, 3518–3524, 3528–3530 | 22½ x 28 | 58 | 180 | 202,000 | 36,000 | Montreal, Baldwin, 1907 |
| M4h | 3462, 3544–3546, 3549, 3551, 3553, 3554, 3558, 3560, 3561, 3563 | 22½ x 28 | 58 | 180 | 202,000 | 36,000 | CPR, 1907-09 |

*James Adams, Rail Photo Service*

FIRST JUBILEE TYPE was outshopped for CPR by Montreal with 80-inch drivers. Later batch from Canadian Locomotive Works had 75-inch wheels. Both classes produce 300 pounds pressure per square inch

| Class | Numbers | Cylinders | Drivers | Pressure | Engine Weight | Tractive Effort | Builder & Date |
|---|---|---|---|---|---|---|---|
| N2a | 3600–3602, 3604, 3607, 3609–3611, 3614, 3616–3619, 3624–3626, 3628–3630, 3632, 3633, 3636–3639, 3541–3643, 3647, 3649–3651, 3654, 3657–3663, 3666, 3671, 3675–3678, 3681 3682, 3686, 3688–3690 | 23 x 32 | 63 | 190 | 236,000 | 43,000 | CPR, 1909; Montreal, 1910-11; CLC, 1909-11 |
| N2b | 3691, 3692, 3694–3697, 3699–3701, 3706, 3708, 3712 3714, 3716, 3719–3727, 3729, 3731, 3734, 3736, 3738, 3740 | 23 x 32 | 63 | 190 | 240,000 | 43,000 | Montreal, 1912 |
| N2c | 3741, 3742, 3744, 3746–3753, 3758, 3759 | 23 x 32 | 63 | 190 | 240,000 | 43,000 | Montreal, Canadian Foundry, 1913-14 |
| N4a | 3952 | 22½ x 28 | 57 | 180 | 195,000 | 38,000 | Montreal, 1913 |
| N4b | 3953, 3954 | 22 x 28 | 57 | 200 | 192,000 | 40,000 | CLC, 1916 |
| N4c | 3955 | 23½ x 30 | 57 | 200 | 243,000 | 49,000 | Montreal, 1921 |
| N4d | 3956 | 23½ x 30 | 57 | 200 | 243,000 | 49,000 | Montreal, 1921 |
| | | | **2-8-2 (Mikado) Type** | | | | |
| P1d | 5100–5119 | 23 x 32 | 63 | 190 | 280,000 | 43,000 | CPR, 1912 |
| P1e | 5120–5194 | 23 x 32 | 63 | 190 | 280,000 | 43,000 | Montreal, 1913 |
| P1n | 5200–5264* | 22 x 32 | 63 | 215 | 273,000 | 45,000 | CPR, 1904-14 |
| P2a | 5300–5309 | 25½ x 32 | 63 | 200 | 330,000 | 56,000 | CPR, 1919 |
| P2b | 5310–5324 | 25½ x 32 | 63 | 200 | 335,000 | 56,000 | Montreal, 1920-21 |
| P2c | 5325–5333, 5335 5344 | 25½ x 32 | 63 | 200 | 338,000 | 56,000 | Montreal, 1923 |
| P2d | 5345 5359 | 25½ x 32 | 63 | 200 | 338,000 | 56,000 | Montreal, 1924 |
| P2e | 5360 5375, 5377–5379 | 22 x 32 | 63 | 250 | 342,000 | 58,000 | CLC, 1926 |
| P2f | 5380–5392, 5394–5397, 5399 5404 | 22 x 32 | 63 | 250 | 338,000 | 58,000 | Montreal, 1928 |
| P2g | 5405–5416 | 22 x 32 | 63 | 275 | 334,000 | 58,000 | Montreal, 1940 |
| P2h | 5417 5436 | 22 x 32 | 63 | 275 | 339,000 | 58,000 | CLC, 1943 |
| P2j | 5437, 5461 | 22 x 32 | 63 | 275 | 339,000 | 58,000 | Montreal, 1944 |
| P2k | 5462–5473 | 22 x 32 | 63 | 275 | 333,000 | 58,000 | ——, 1948 |
| | | | **2-10-0 (Decapod) Type** | | | | |
| R2a | 5750 | 23½ x 32 | 58 | 200 | 230,000 | 52,000 | CPR, 1909 |
| R2b | 5751–5754 | 23½ x 32 | 58 | 200 | 248,000 | 52,000 | CPR, 1911 |
| R2c | 5755 | 23½ x 32 | 58 | 200 | 248,000 | 52,000 | CPR, 1911 |
| R3a | 5757 | 24 x 32 | 58 | 200 | 255,000 | 54,000 | CPR, 1917 |
| R3b | 5758–5762 | 24 x 32 | 58 | 200 | 262,000 | 54,000 | CPR, 1917-18 |
| R3c | 5763–5765, 5771, 5775–5780 | 24 x 32 | 58 | 200 | 262,000 | 54,000 | CPR, 1918 |
| R3d | 5781–5790 | 24 x 32 | 58 | 200 | 270,000 | 54,000 | CPR, 1918-19 |
| | | | **2-10-2 (Santa Fe) Type** | | | | |
| S2a | 5800–5813 | 26½ x 32 | 58 | 200 | 359,000 | 66,000 | CPR, 1919-20 |
| | | | **2-10-4 (Selkirk) Type** | | | | |
| T1a | 5900 5919 | 25½ x 32 | 63 | 275 | 453,000 | 78,000 | Montreal, 1929 |
| T1b | 5920 5929 | 25 x 32 | 63 | 285 | 447,000 | 78,000 | Montreal, 1938 |
| T1c | 5930 5935 | 25 x 32 | 63 | 285 | 449,000 | 78,000 | ——, 1949 |
| | | | **4-4-0 (American) Type** | | | | |
| A1e | 29 | 17 x 24 | 70 | 160 | 115,000 | 13,000 | CPR, 1887 |
| A2m | 136 | 17 x 24 | 63 | 160 | 115,000 | 15,000 | Rogers, 1883 |
| A2q | 144 | 17 x 24 | 63 | 160 | 115,000 | 15,000 | CPR, 1886 |
| | | | **4-4-4 (Jubilee) Type** | | | | |
| F1a | 2910–2929 | 16½ x 28 | 75 | 300 | 240,000 | 26,000 | CLC, 1937-38 |
| F2a | 3000–3004 | 17¼ x 28 | 80 | 300 | 263,000 | 27,000 | Montreal, 1936 |

*Converted from 2-8-0s.

D. Dunsmore, Montreal

**HUGE FLEET** of Pacifics was built by CPR, Montreal Locomotive Works and Canadian Locomotive Company, plus handful by Alco. No. 2400, part of G3g Class, was produced by CLC in 1942 and '43

| Class | Numbers | Cylinders | Drivers | Pressure | Engine Weight | Tractive Effort | Builder & Date |
|---|---|---|---|---|---|---|---|
| | | | **4-6-0 (Ten-Wheeler) Type** | | | | |
| D4g | 417–425, 427, 430, 431, 433, 434, 437, 439–442, 445, 446, 449, 450, 452–459, 484, 485, 487, 492 | 19 x 24 | 62 | 180 | 146,000 | 21,000 | CPR, 1912-15 |
| D4g | 466, 469, 470, 472–475, 477 | 19 x 24 | 62 | 180 | 146,000 | 21,000 | Montreal, 1912-15 |
| D6b | 526, 536 | 20 x 26 | 63 | 200 | 176,000 | 28,000 | North British, 1903 |
| D6d | 550 | 20 x 26 | 63 | 200 | 176,000 | 28,000 | Saxon, Ger., 1903 |
| D9c | 564, 573, 575, 582, 586, 590, 592, 597 | 21 x 30 | 63 | 190 | 205,000 | 34,000 | Alco, 1903 |
| D10a | 700, 701 | 21 x 28 | 63 | 200 | 205,000 | 33,000 | CLC, 1905 |
| D10b | 691, 729, 738, 751, 754 | 21 x 28 | 63 | 200 | 205,000 | 33,000 | Montreal, 1905-06 |
| D10c | 672, 675, 678, 680, 748, 761, 776, 791, 793 | 21 x 28 | 63 | 200 | 205,000 | 33,000 | CLC, 1905; CPR, 1905-06; Montreal, 1906 |
| D10d | 613, 626–628, 636, 642, 650, 665 | 22½ x 28 | 63 | 180 | 205,000 | 33,000 | Alco, Montreal, 1907 |
| D10e | 800, 802, 803, 806, 807, 809, 811, 813–816, 819, 820, 822–824, 827, 828, 830–834, 836 842, 848–861, 863–866, 868, 869 | 22½ x 28 | 63 | 180 | 205,000 | 33,000 | Montreal, 1908-09; CPR, 1908-10 |
| D10f | 843, 844, 846, 847 | 22½ x 28 | 63 | 180 | 205,000 | 33,000 | Montreal, 1909 |
| D10g | 870–876, 879–882, 886–894, 896–905, 908, 909, 911–919, 921–931, 933–950, 952, 953, 955–958, 960, 961 | 21 x 28 | 63 | 200 | 205,000 | 33,000 | CPR, 1910-11 |
| D10h | 987–1015, 1017–1033, 1035–1041, 1043–1051, 1053 1061, 1087–1098, 1100–1106, 1108–1111 | 21 x 28 | 63 | 200 | 205,000 | 33,000 | Montreal, 1912-13 CLC, 1913 |
| D10j | 962–964, 966, 967, 969–981, 983–986 | 21 x 28 | 63 | 200 | 205,000 | 33,000 | Montreal, 1912 |
| D10k | 1063–1068, 1071–1075, 1077–1086 | 21 x 28 | 63 | 200 | 205,000 | 33,000 | Alco, 1912 |
| | | | **4-6-2 (Pacific) Type** | | | | |
| G1p | 2200 | 21¼ x 28 | 75 | 225 | 241,000 | 32,000 | CPR, 1906 |
| G1p | 2202 | 20 x 28 | 75 | 250 | 241,000 | 32,000 | CPR, 1906 |
| G1r | 2203, 2204–2206 | 22½ x 28 | 75 | 200 | 241,000 | 32,000 | CPR, 1906 |
| G1r | 2205 | 20 x 28 | 75 | 250 | 241,000 | 32,000 | CPR, 1906 |
| G1s | 2207, 2211, 2213–2216, 2218, 2220, 2221, 2223, 2226 | 22½ x 28 | 75 | 200 | 241,000 | 32,000 | CPR, 1906-07 |
| G1s | 2219, 2222 | 21¼ x 28 | 75 | 225 | 241,000 | 32,000 | CPR, 1906 |
| G1s | 2209, 2210, 2212, 2224 | 20 x 28 | 75 | 250 | 241,000 | 32,000 | CPR, 1911 |
| G1t | 2227 | 20 x 28 | 75 | 250 | 241,000 | 32,000 | CPR, 1911 |
| G1t | 2228 | 22½ x 28 | 75 | 200 | 241,000 | 32,000 | CPR, 1911 |
| G1u | 2229 | 22½ x 28 | 75 | 200 | 241,000 | 32,000 | CPR, 1913 |
| G1u | 2230 | 20 x 28 | 75 | 250 | 241,000 | 32,000 | CPR, 1913 |
| G1v | 2231, 2232, 2234 | 22½ x 28 | 75 | 200 | 241,000 | 32,000 | CPR, 1914 |
| G1v | 2233, 2237 | 21¼ x 28 | 75 | 225 | 241,000 | 32,000 | CPR, 1914 |
| G1v | 2235, 2236, | 20 x 28 | 75 | 250 | 241,000 | 32,000 | CPR, 1914 |
| G2f | 2615, 2643 | 22½ x 28 | 70 | 200 | 241,000 | 34,000 | CPR, 1912, Montreal, 1913 |
| G2s(x) | 2569 | 21 x 28 | 70 | 200 | 241,000 | 30,000 | Montreal, 1908-09 |
| G2u(x) | 2650 | 22½ x 28 | 70 | 200 | 241,000 | 34,000 | Montreal, 1913 |
| G2p | 2500 | 21¼ x 28 | 70 | 225 | 241,000 | 34,000 | CPR, 1906 |
| G2p | 2501 | 22½ x 28 | 70 | 200 | 241,000 | 34,000 | CPR, 1906 |
| G2q | 2503, 2505, 2507 | 22½ x 28 | 70 | 200 | 241,000 | 34,000 | CPR, 1906 |
| G2q | 2508 | 21¼ x 28 | 70 | 225 | 241,000 | 34,000 | CPR, 1906 |
| G2q | 2504 | 20 x 28 | 70 | 250 | 241,000 | 34,000 | CPR, 1906 |

TEN-WHEELERS, which CPR has considerable number of, came to road early in century, D10e Class between 1908 and '10. Oldest 4-6-0s, bear European builderplates

*Rail Photo Service*

CONSOLIDATIONS comprise goodly portion of Canadian Pacific roster. Last ones were outshopped in 1921 by Montreal, first by Alco in 1902

| Class | Numbers | Cylinders | Drivers | Pressure | Engine Weight | Tractive Effort | Builder & Date |
|---|---|---|---|---|---|---|---|
| G2r | 2510, 2521, 2523, 2525, 2526 | 20 x 28 | 70 | 250 | 241,000 | 34,000 | CPR, 1907 |
| G2r | 2511-2513, 2518, 2519, 2522, 2524, 2527 | 22½ x 28 | 70 | 200 | 241,000 | 34,000 | CPR, 1907 |
| G2r | 2514, 2516, 2520 | 21¼ x 28 | 70 | 225 | 241,000 | 34,000 | CPR, 1907 |
| G2s | 2528-2530, 2536-2538, 2541, 2542, 2547, 2551, 2552, 2559, 2571, 2573, 2579, 2581, 2584, 2588, 2596, 2599, 2602 | 22½ x 28 | 70 | 200 | 241,000 | 34,000 | CPR, 1907-11 |
| G2s | 2533, 2534, 2539, 2540, 2548, 2550, 2553-2556, 2558, 2564, 2572, 2575, 2580, 2582, 2583, 2585, 2586, 2590, | 20 x 28 | 70 | 250 | 241,000 | 34,000 | CPR, 1908-10; Montreal, 1908-09; Alco, 1909 |

| Class | Numbers | Cylinders | Drivers | Pressure | Engine Weight | Tractive Effort | Builder & Date |
|---|---|---|---|---|---|---|---|
| | 2592, 2595, 2597, 2598, 2601 | | | | | | |
| G2t | 2603, 2604, 2606–2608 | 22½ x 28 | 70 | 200 | 241,000 | 34,000 | CPR, 1911-12 |
| G2t | 2609 | 20 x 28 | 70 | 250 | 241,000 | 34,000 | CPR, 1912 |
| G2u | 2610, 2611, 2617, 2622–2624, 2627, 2629, 2633, 2634, 2644, 2655, 2665 | 20 x 28 | 70 | 250 | 241,000 | 34,000 | CPR, 1912-14 |
| G2u | 2628 | 21¼ x 28 | 70 | 225 | 241,000 | 34,000 | CPR, 1913 |
| G2u | 2613, 2621, 2625, 2626, 2630, 2637, 2640, 2646–2649, 2652, 2657–2660, 2662 2664 | 22½ x 28 | 70 | 200 | 241,000 | 34,000 | CPR, 1912-14; Montreal, 1913 |
| G3a | 2300–2303 | 25 x 30 | 75 | 200 | 319,000 | 42,000 | CPR, 1919 |
| G3b | 2304–2309 | 25 x 30 | 75 | 200 | 317,000 | 42,000 | CPR, 1920-21 |
| G3c | 2310–2318, 2320, 2322–2325 | 25 x 30 | 75 | 200 | 317,000 | 42,000 | Montreal, 1923 |
| G3d | 2331, 2332, 2340, 2341, 2343, 2349 | 23 x 30 | 75 | 250 | 319,000 | 45,000 | Montreal, 1926 |
| G3d | 2326–2328, 2330, 2333–2338, 2342, 2344–2348, 2350 | 23 x 30 | 75 | 250 | 324,000 | 45,000 | Montreal, 1926 |
| G3e | 2351–2356, 2358–2365 | 22 x 30 | 75 | 275 | 322,000 | 46,000 | CLC, 1938 |
| G3f | 2366–2377 | 22 x 30 | 75 | 275 | 324,000 | 46,000 | CLC, 1940 |
| G3g | 2378–2417 | 22 x 30 | 75 | 275 | 323,000 | 46,000 | CLC, 1942-43 |
| G3h | 2418–2462 | 22 x 30 | 75 | 275 | 323,000 | 46,000 | CLC, 1944-45 |
| G3j | 2463–2472 | 22 x 30 | 75 | 275 | 319,000 | 46,000 | Montreal, 1948 |
| G4a | 2700–2711 | 24½ x 30 | 70 | 200 | 318,000 | 44,000 | CPR, 1919-20 |
| G4b | 2712–2717 | 24½ x 30 | 70 | 200 | 318,000 | 44,000 | CPR, 1921 |
| G5a | 1200, 1201 | 20 x 28 | 70 | 250 | 233,000 | 34,000 | CPR, 1944 |
| G5b | 1202–1231 | 20 x 28 | 70 | 250 | 230,000 | 34,000 | Montreal, 1945-46 |
| G5c | 1232–1271 | 20 x 28 | 70 | 250 | 230,000 | 34,000 | Montreal, 1946-47 |
| G5d | 1272–1301 | 20 x 28 | 70 | 250 | 234,000 | 34,000 | CLC, 1948 |
| | | | **4-6-4 (Hudson) Type** | | | | |
| H1a | 2800–2809 | 22 x 30 | 75 | 275 | 360,000 | 46,000 | Montreal, 1929 |
| H1b | 2810, 2812, 2814–2819 | 22 x 30 | 75 | 275 | 360,000 | 46,000 | Montreal, 1930 |
| H1b | 2811, 2813 | 22 x 30 | 75 | 275 | 369,000 | 46,000 | Montreal, 1930 |
| H1c | 2820–2837 2843–2849 | 22 x 30 | 75 | 275 | 355,000 | 46,000 | Montreal, 1937 |
| H1c | 2838–2842 | 22 x 30 | 75 | 275 | 366,000 | 46,000 | Montreal, 1937 |
| H1d | 2850–2854 | 22 x 30 | 75 | 275 | 366,000 | 46,000 | Montreal, 1938 |
| H1d | 2855–2859 | 22 x 30 | 75 | 275 | 355,000 | 46,000 | Montreal, 1938 |
| H1e | 2860–2864 | 22 x 30 | 75 | 275 | 366,000 | 46,000 | Montreal, 1948 |
| | | | **4-8-4 (Northern) Type** | | | | |
| K1a | 3100, 3101 | 25½ x 30 | 75 | 275 | 435,000 | 61,000 | CPR, 1928 |

## Quebec Central Railway

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | **4-6-0 (Ten-Wheeler) Type** | | | | |
| D10e | 811, 856, 866 | 22½ x 28 | 63 | 180 | 205,000 | 33,000 | CPR, 1908-10 |
| D10g | 873, 893, 940, 948 | 21 x 28 | 63 | 200 | 205,000 | 33,000 | CPR, 1910-11 |
| | | | **4-6-2 (Pacific) Type** | | | | |
| G2s | 2536, 2573 2588 | 22½ x 28 | 70 | 200 | 236,000 | 34,000 | CPR, 1908-10 |
| G2s | 2554, 2556 | 20 x 28 | 70 | 250 | 236,000 | 34,000 | CPR, 1909 |

## Dominion Atlantic Railway

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | **0-6-0 (Switcher) Type** | | | | |
| U3d | 6227 | 18 x 26 | 52 | 200 | 143,000 | 28,000 | CPR, 1911 |
| | | | **4-6-0 (Ten-Wheeler) Type** | | | | |
| * | 44 | 21 x 26 | 63 | 190 | 154,000 | 29,000 | CLC, 1913 |
| D4g | 470 | 19 x 24 | 62 | 180 | 146,000 | 21,000 | Montreal, 1912 |
| D10h | 999, 1018 1077, 1079, 1090, 1092 | 21 x 28 | 63 | 200 | 205,000 | 33,000 | Montreal, 1912-13; CLC, 1913 |

*Not CPR standard type.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | **4-6-2 (Pacific) Type** | | | | |
| G2r | 2526 | 22½ x 28 | 70 | 200 | 236,000 | 34,000 | CPR, 1907 |
| G2s | 2516, 2551 | 22½ x 28 | 70 | 200 | 236,000 | 34,000 | CPR, 1909 |

## Grand River Railway

| Class | Numbers | Horsepower | Wheels | Length | Engine Weight | Tractive Effort | Year Built |
|---|---|---|---|---|---|---|---|
| | | | | Electric Motors | | | |
| Freight | 222 | 500 | 36″ | 30′ | 96,000 | 16,800 | 1904 (rebuilt, 1921) |
| Freight | 224 | 500 | 36 | 34′ 6″ | 84,000 | 16,800 | 1907 (rebuilt, 1921) |
| Freight | 226 | 800 | 38 | 34′ 6″ | 166,380 | 20,000 | 1921 |
| | 228 | 980 | 38 | 34′ 6″ | 164,000 | 24,400 | 1921 |
| | 230 | 800 | 38 | 38′ 9″ | 126,560 | 25,200 | 1930 |
| | 232 | 800 | 36 | 35′ 6″ | 115,300 | 24,800 | 1919 |
| | 234 | 800 | 36 | 35′ 6″ | 115,400 | 24,800 | 1920 |

## Lake Erie & Northern

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | Electric Motors | | | |
| Freight | 333 | 500 | 38 | 34′ 6″ | 124,000 | 16,800 | 1915 |
| Freight | 335 | 500 | 36 | 34′ 6″ | 124,000 | 16,800 | 1915 |
| Freight | 337 | 980 | 38 | 34′ 6″ | 164,000 | 24,400 | 1921 |

*Edward Johnson, Vancouver, B.C.*

**DECAPODS** have CPR builderplates. All have 58-inch drivers, 200-pound pressure, but different cylinder sizes, engine weights and tractive efforts

## Diesel Locomotives

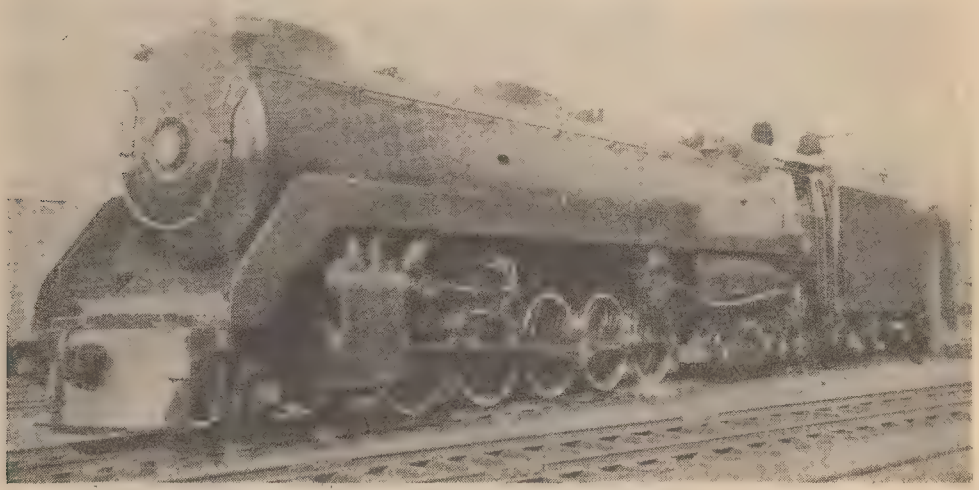
| Class | Numbers | Horsepower | Engine Weight | Builder & Date |
|---|---|---|---|---|
| | | B-B (Switcher) Type | | |
| DS-6a | 6500–6505 | 600 | 199,000 | Montreal, 1951 |
| DS-6b | 6506–6517 | 660 | 199,100 | Montreal, 1952 |
| DS-8a | 6700–6703 | 800 | 232,000 | GMD, 1950 |
| DS-8b | 6704–6709 | 800 | 232,000 | GMD, 1951 |
| DS-10a | 7010–7014 | 1000 | 230,000 | Alco, 1943 |
| DS-10b | 7015–7024 | 1000 | 230,000 | Alco, 1944 |
| DS-10c | 7025–7037 | 1000 | 230,000 | Alco, 1945 |
| DS-10d | 7038–7051 | 1000 | 230,000 | Alco, 1946 |
| DS-10e | 7052–7064 | 1000 | 230,000 | Alco, 1947 |
| DS-10f | 7065 | 1000 | 235,000 | Baldwin, 1948 |
| DS-10g | 7066–7075 | 1000 | 235,000 | Baldwin, 1948 |
| DS-10h | 7076–7095 | 1000 | 230,000 | Montreal, 1948-49 |
| DS-10j | 7096–7098 | 1000 | 230,000 | Montreal, 1949 |
| DS-10k | 7090–7108 | 1000 | 230,000 | Montreal, 1949 |
| DS-10m | 7109–7114 | 1000 | 230,000 | Montreal, 1952 |
| DS-10n | 7115–7117 | 1000 | 230,000 | Montreal, 1953 |
| DS-12a | 7400–7405 | 1200 | 248,200 | GMD, 1953 |
| ZB-10a | B-100, B-101 | .... | 240,000 | Montreal, 1950 |
| | | B-B (Road Switcher) Type | | |
| DRS-10a | 8000–8004 | 1000 | 234,000 | Baldwin, 1948 |
| DRS-10b | 8005–8012 | 1000 | 234,000 | Baldwin, 1948 |
| DRS-15a | 8400–8404 | 1500 | 246,000 | Alco, 1949 |
| DRS-15b | 8405–8408 | 1500 | 249,000 | Montreal, 1950 |
| DRS-15c | 8409 | 1500 | 248,500 | GMD, 1952 |
| DRS-15c | 8410, 8411 | 1500 | 251,700 | GMD, 1952 |
| DRS-15d | 8412–8421 | 1500 | ..... | GMD, 1953 |

*Frank Norris, Sheep Creek, B. C.*

MIKADO 5108, at head of Kettle Valley Express at Nelson in British Columbia, is CPR product

| Class | Numbers | Horsepower | Engine Weight | Builder & Date |
|---|---|---|---|---|
| | | **B-B (Freight-Passenger) Type** | | |
| DFA-15a | 4000–4007 | 1500 | 248,000 | Alco, 1949 |
| DFA-15b | 4008–4027 | 1500 | 249,000 | Montreal, 1950 |
| DFA-15c | 4028–4037 | 1500 | 248,000 | GMD, 1950 |
| DFA-15d | 4038–4041 | 1500 | 256,000 | GMD, 1951 |
| DFA-15e | 4058–4063 | 1500 | 255,500 | GMD, 1952 |
| DFA-15f | 4066–4075 | 1500 | 261,800 | GMD, 1952 |
| DFA-15g | 4099–4100 | 1500 | ..... | GMD, 1953 |
| DFA-16a | 4042–4051 | 1600 | 249,000 | Montreal, 1951 |
| DFA-16b | 4052–4057 | 1600 | 271,000 | CLC, 1952 |
| DFA-16c | 4064–4065 | 1600 | 267,000 | CLC, 1951 |
| DFA-16d | 4076–4091 | 1600 | ..... | CLC, 1953 |
| DFB-15a | 4400–4403 | 1500 | 248,000 | Alco, 1949 |
| DFB-15b | 4404–4423 | 1500 | 249,000 | Montreal, 1950 |
| DFB-15c | 4424–4433 | 1500 | 254,000 | GMD, 1951 |
| DFB-15c | 4434–4437 | 1500 | 254,300 | GMD, 1951 |
| DFB-15d | 4438–4447 | 1500 | 253,500 | GMD, 1952 |
| DFB-15d | 4448 | 1500 | 247,100 | GMD, 1952 |
| DFB-15e | 4459–4462 | 1500 | 248,000 | GMD, 1953 |
| DFB-16a | 4449–4454 | 1600 | 270,000 | CLC, 1952 |
| DFB-16b | 4455–4458 | 1600 | ..... | CLC, 1953 |
| | | **A1A-A1A (Passenger) Type** | | |
| DPA-22a | 1800–1802 | 2250 | 331,000 | GMD, 1949 |

*Information supplied by Chief of Motive Power & Rolling Stock F. A. Benger*

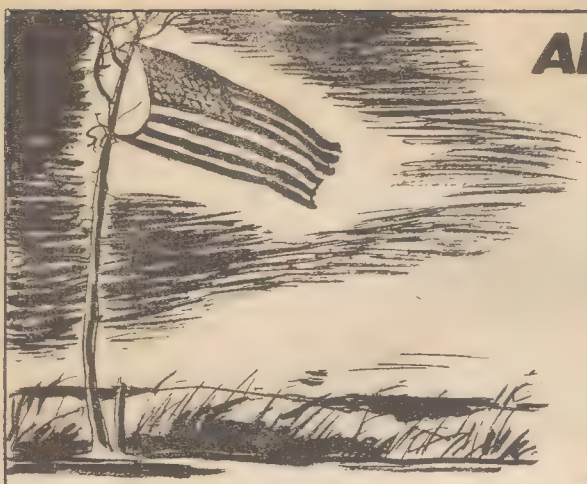


*Fred J. Sankoff, Westmount, Que.*

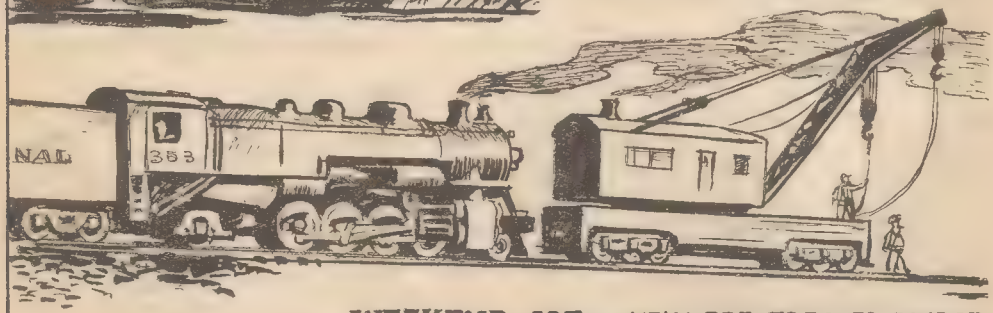
SOME SELKIRKS hit scales at close to half million pounds, others more

# ALONG THE IRON PIKE

by JOE EASLEY

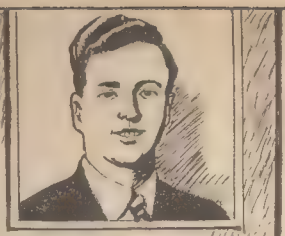


**TAPS.** FLAG BLOWN MILES BY ARKANSAS TORNADO, LODGED AT HALF-STAFF IN TREE ABOVE BODIES OF STORM VICTIMS MOPAC ROADMASTER WALTER ARNOLD AND WIFE (From "Believe It or Not")

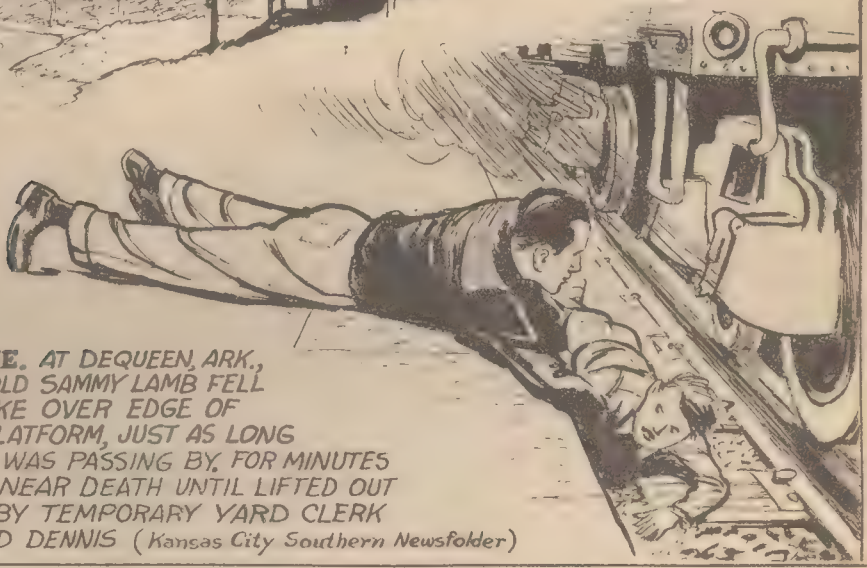



**WEEKEND JOB.** NEW PRE-ERECTED BRIDGE FOR CANADIAN NATIONAL WAS SLID INTO POSITION OVER GREASED RAILS OF OLD SPAN ACROSS CONESTOGO RIVER. REPLACED STRUCTURE WAS LOWERED INTO STREAM AND SCRAPPED (Ron Moyer, Kitchener, Ont.)

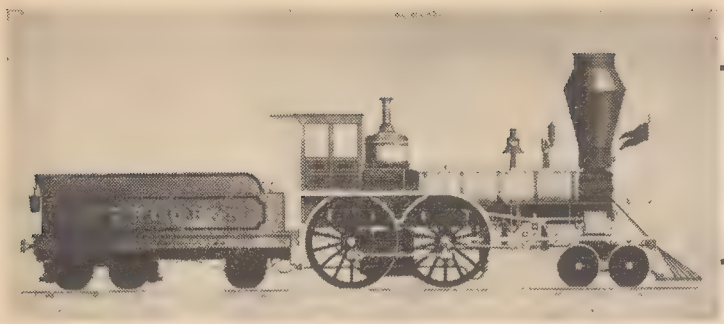
**NEWS.** BITTEN BY A POSSUM AT TAYLOR, TEX., BRAKEMAN OF MOPAC LOCAL FREIGHT HAD TO UNDERGO ANTI-RABIES SERIES WHEN TESTS ON ANIMAL PROVED POSITIVE (Bozo Texino, San Antonio)



**LIKE FATHER...** ON LAST RUN OF CPR CONDUCTOR ANGUS MCINTOSH, TRAIN ORDERS WERE MADE OUT AND HANDED HIM BY SONS LLOYD AND KENNETH, SASKATOON DISPATCHER AND SUTHERLAND OPERATOR (Canadian Pacific Spanner)



**RESCUE.** AT DEQUEEN, ARK., 6-YEAR-OLD SAMMY LAMB FELL FROM BIKE OVER EDGE OF DEPOT PLATFORM, JUST AS LONG FREIGHT WAS PASSING BY. FOR MINUTES HE LAY NEAR DEATH UNTIL LIFTED OUT BODILY BY TEMPORARY YARD CLERK CLIFFORD DENNIS (Kansas City Southern Newsfolder)



# 100

## *From the Early Mercury Of the Syracuse & Utica To the Last Alco Steamer*

ON AUGUST FIRST the New York Central Railroad was exactly one hundred years old, for it was on that date in 1853 that the newly-formed New York Central Railroad formally took possession of a series of ten short railroads in New York State between Albany and Troy on the east and Buffalo and Niagara Falls on the west. The railroads, consolidated under a special state law passed on April 2, 1853, to form the New York Central Railroad, consisted of the Albany & Schenectady, formerly the Mohawk & Hudson, prior to 1847, the first railroad in New York State; the Schenectady & Troy, the Utica & Schenectady, the Syracuse & Utica, the Rochester & Syracuse, the Buffalo & Rochester, the Rochester, Lockport & Niagara Falls and the Buffalo & Lockport. Two non-operating railroads, the Syracuse & Utica Direct and the Mohawk Valley, were also included in the merger. The Rochester & Syracuse was a previous consolidation (in 1850) of the Auburn & Syracuse with the Auburn & Rochester, and the Buffalo & Rochester, a former merger (in 1850, too) of the Tonawanda and Attica & Buffalo Railroads.

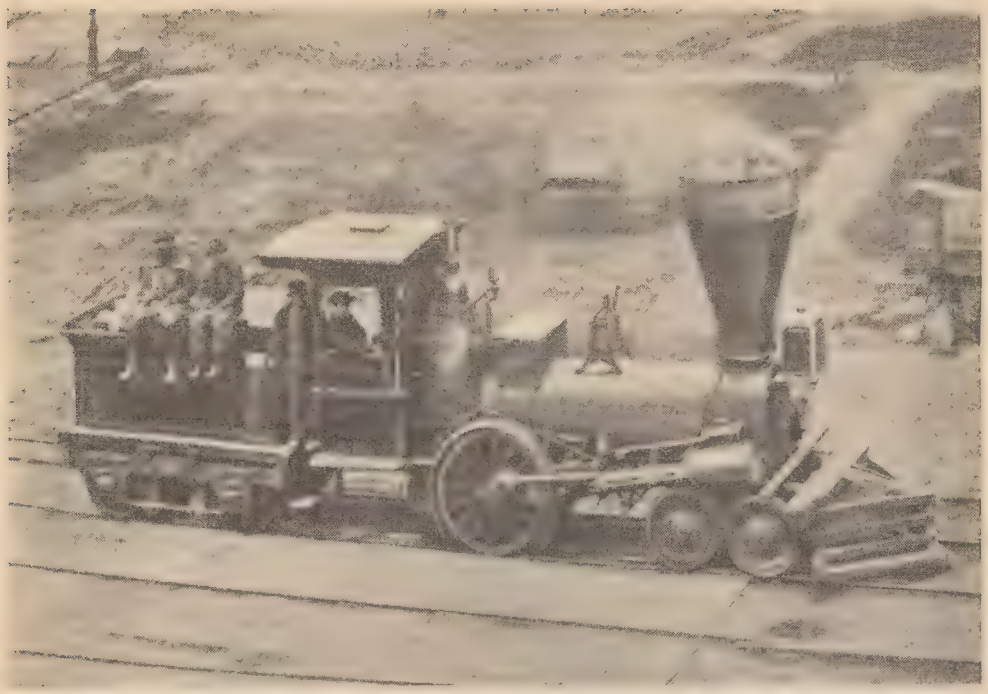
When the New York Central took possession of the combined roads, it found that it owned 154 woodburning locomotives of various types, ranging in weight from 10 to 30 tons. They represented the output of many different locomotive builders. The oldest NYC engines had but one pair of drivers, and were early products of Rogers in Paterson, N. J., and Norris in Philadelphia. The majority bore names, but numbers were assigned as well by the NYC. Two of the older locomotives, the *Wyoming* (No. 181) and the *Attica* (No. 183) had been built originally by Dennis,

# YEARS OF STEAM

ROBERT C. SCHMID

Wood & Russell of Auburn, N. Y., in 1842, the former for the Auburn & Syracuse and the latter (originally named *Buffalo*) for the Attica & Buffalo. These two locomotives were rebuilt a few years later at the Auburn State Prison, a rare instance of such work being done at a state institution.

The new company lost no time in repleting its motive power. New locomotives of the *Eight-Wheeler* (4-4-0) type, for both passenger and freight service, were ordered, principally from the Schenectady Locomotive Works located on the line where Walter McQueen, the famous locomotive builder, was superintendent. The railroad also built new and rebuilt older locomotives in its own shops at Albany, Syracuse and Rochester—new shops were established at West Albany in the middle 1860s. The first *Ten-Wheelers* (4-6-0) received from Schenectady in 1855, were in-



**THIS ONE** is thought to be oldest New York Central locomotive ever photographed, in switching service near Auburn State Prison. Not positively identified, but some in the know say it's the Providence, No. 180, originally built by William Norris in Philadelphia for the Auburn & Rochester in 1842. It had 10x20-inch cylinders, 48-inch drivers and weighed 10 tons

side connected and weighed 32 tons. A detailed report, *Description and Condition of the Locomotive Engines,* dated September 30, 1856, was made by the NYC for the State Board of Railroad Commissioners, and it listed a total of 201 locomotives.

In October 1869 the Hudson River Railroad, extending from New York City to Albany, was merged with the New York Central and the name of the consolidated company was changed to the New York Central & Hudson River Railroad. With the acquisition of the Hudson River road there came to the Central a man of decided mechanical ability, William Buchanan, who had been Master Mechanic of the former road since 1859 and had built a number of new locomotives at the old 31st Street Shops in New York City. In 1881 he was appointed superintendent of motive power, a position he held until his retirement in 1899. It might be said that Buchanan developed the *Eight-Wheeler* type locomotive to its highest perfection during his regime. Such locomotives made possible the successful operation of the *Empire State Express,* which was inaugurated in October 1891 after a test run had demonstrated that an average speed of 61.4 miles an hour could be maintained between New York City and Buffalo. The world-famous *999*, with its 19x24-inch cylinders and 86-inch drivers, came out of the West Albany Shops in April 1893. As is generally known, the *999* attained a speed of 112½ miles an hour; breaking a world record on May 10, 1893. In sustained high speed passenger service, however, the *999* was not the equal of some other Buchanan 4-4-0 engines, for instance No. 870, which turned in many notable speed performances. Engine 870, a Schenectady product of 1890, had 19x24-inch cylinders and 70-inch drivers (later changed to 78"). A new 870 with 78-inch drivers and increased heating surface, was built at West Albany in November 1898, at which time the former 870 was renumbered 944. *Old 999* still

lives on, but in considerably altered form. In 1899 her drivers were reduced to 70 inches, and in 1906 a new radial stay boiler was applied. Today she is retained as an exhibition engine by the Central.

As the railroad was a water level line, th 4-4-0 type locomotive sufficed for a time, for both passenger and freight service. From 1889 through 1892, however, a large number of *Mogul* type locomotives were acquired for freight service, followed by a group of heavier design in 1899 and 1900. Four *Consolidation* type freight engines, the first on the Central, had been received from Schenectady in '88. The need for a heavier, fast passenger engine was felt toward the close of the century, and *Ten-Wheeler* type locomotives similar to Buchanan's design were delivered from Schenectady in July 1899 and ten additional engines of the same design came from Baldwin in 1900. These sturdy *Ten-Wheelers* proved their worth, and some of the original ten remained in service as late as 1934 on the Putnam Division.

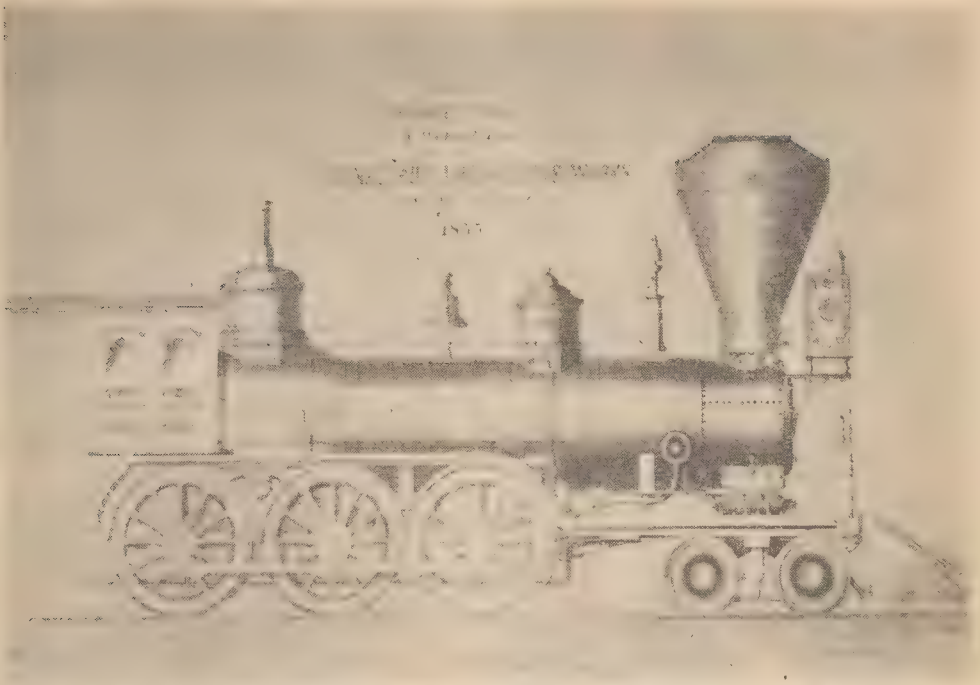
A. M. Waitt, who succeeded Buchanan, brought out a heavier design 4-4-0 type, and two engines, Nos. 947 and 948, were built at the newly-established Depew Shops in 1900 and 1901. But the sun was setting on the glory of the 4-4-0, and while they were the heaviest of the type on the road, they gave no outstanding performance. Early in 1902 Waitt introduced a new system of classification of the Central's locomotives, replacing the one which had been in use since 1890 and proved later to be cumbersome and inadequate. Waitt's system remains in use today, with additions of course, for newer types. Briefly, it is based on letter designations for the different wheel arrangements, as A for 0-4-0 (later used for 2-8-4), B for 0-6-0, C for 4-4-0. D for 2-4-4 (double-end suburban acquired from the New York & Putnam), E for 2-6-0, F for 4-6-0, G for 2-8-0, H for 4-8-0 (later used for 2-8-2), I for 4-4-2, etc. Variations in size and design of a certain type were taken care of by numerals

*Continued on page 61*

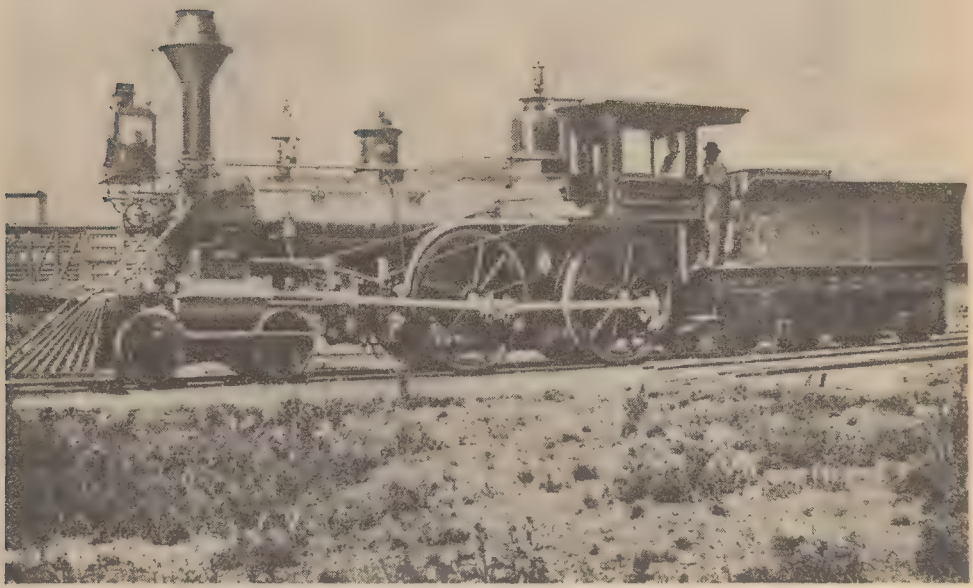
**ENGINE on right in early wreck scene on New York Central was No. 25, the H. Stevens, built in 1853 for the Utica & Schenectady by Schenectady Locomotive Works. Wrecked one is No. 208, outshopped by same firm in 1856**

DEAN RICHMOND, or No. 147, was named for director of road who later became president. Produced by Schenectady in 1853, it had 16x22 cylinders, 78-inch drivers

THE W. R. GIFFORD, which was No. 57, later became 493. Engine was built in September 1854 by Schenectady

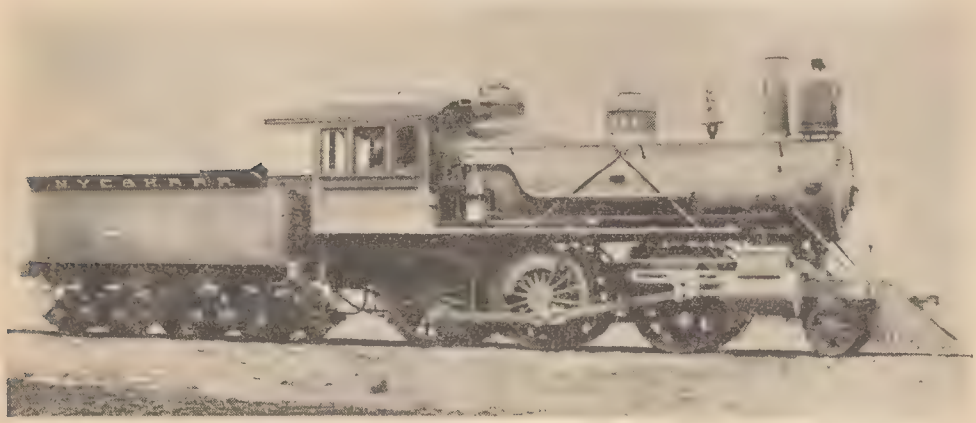


FIRST TEN-WHEELER of Central was early McQueen, the President, No. 67, later 503, scrapped in '84. Inside connected 4-6-0 was produced at Schenectady in March 1855



WEST ALBANY JOB of '65 was No. 268, the Robert L. Banks, named for road's assistant secretary and treasurer

AMONG FIRST MOGULS (Schenectady '89) Engine 529 later became No. 1477, Class Ed. Driver diameter measured 64 inches



J. S. ROGERS' PLANT in Paterson under Superintendent Reuben Wells constructed this Mogul, later 1572, Class Eb, in September 1890. Sixty-ton engine's tender tank held 3500 gallons of water

CONSOLIDATION, one of first four (Schenectady, June 1888), was renumbered twice—503, then 2202, Class G. Drive wheels measured only 51 inches

and sub-letters following the base class letter.

SOON AFTER the turn of the century, revolutionary changes in design, size and power of the locomotives began to take place, to meet increasing traffic demands. The New York Central & Hudson River had been expanded considerably through the leasing of the Boston & Albany, the West Shore, the Rome, Watertown & Ogdensburg, the Mohawk & Malone, the St. Lawrence & Adirondacks (later), the Fall Brook, the Beech Creek and the New York & Putnam, each line contributing additional locomotives to the roster. The first 4-8-0 type engines came to the Central from the Beech Creek and from the Boston & Albany.

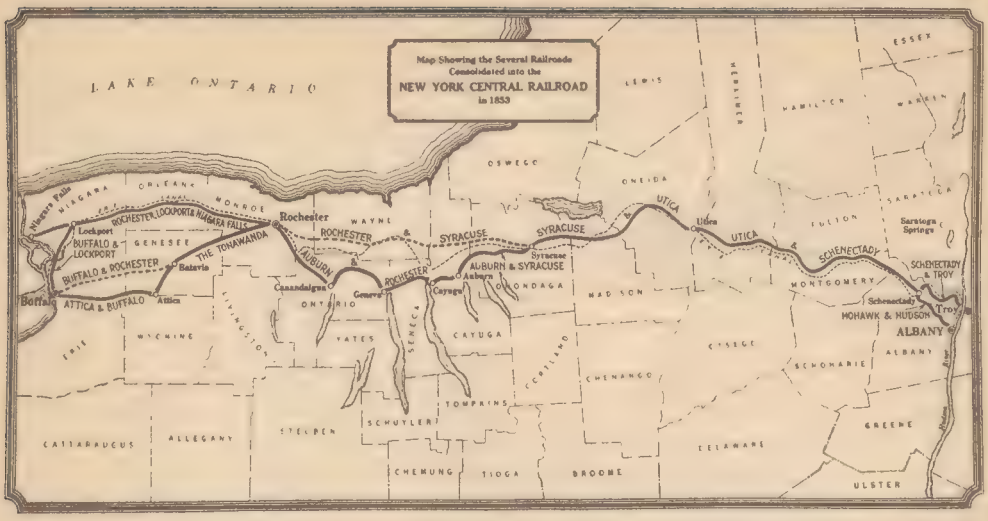
The Central's first *Atlantic* (4-4-2) type locomotive, No. 2979, Class I, was received from Schenectady in January 1901, to be followed by others in considerable number through 1907. Their design involved the use for the first time of a two-wheeled trailer truck, permitting the application of a deep, wide firebox for increased heating surface. The *Twentieth Century Limited* made its first run between New York and Chicago on June 15, 1902, and the *Atlantics* helped make the 20-hour schedule for it possible. The portion of the run between Buffalo and Chicago was over the Lake Shore & Michigan Southern, in which the Central had a controlling interest. A new and heavier design *Ten-Wheeler*, Class F-2, was introduced in 1905, and a considerable number were built through 1908, for handling local passenger and freight on main and branch lines.

The career of the *Atlantics* was brief, cut short by the advent of the *Pacific* (4-6-2) type, the first being Engine 2795, Class K. It came from the Schenectady Works of the newly-formed American Locomotive Company in December 1903. Later the 3595 and still later the 510, it ended its days on the Boston & Albany. The *Pacific* type in its later developments, ending with Class K-6b, was built in large numbers through 1926. Mention should also be made of the K-11 Class *Pacifics*, which were built from 1910 through 1913 for fast freight service. They proved ideally suited for local passenger and commuter train service, chiefly on the Adirondack, Harlem and West Shore Divisions. A number of the K-11 classes, rebuilt with 72-inch drivers for fast express service, were known as K-14's.

Along with the construction of the new Grand Central Terminal in New York City, work began on electrifying the portion of the Central from New York City to Harmon on the Hudson River Division and to North White Plains on the Harlem Division. The first electric locomotive, No 6000, was delivered by Alco and General Electric late in 1904. It was not until 1906, however, that the first electric train operated out of Grand Central. Engine 6000, later numbered 3400, 3200, 1100 and finally 100, is still in service as a switcher. The electric fleet in the New York zone now numbers 137 locomotives.

The *Consolidation* type was developed rapidly for heavy freight service, and a large number were built. One, the 2749, Class G-5f, was the first Central locomotive to be equipped with Walschaert valve gear, later universally adopted for new locomotives, until supplanted by the Baker valve gear. The *Mikado* (2-8-2) type came into favor about 1912, and a large number of the 2-8-0s were rebuilt into 2-8-2s and designated as H-5 Classes. Many new *Mikados* were also built, too, culminating in the H-10 classes.

In 1914 the Lake Shore & Michigan Southern and a few lesser lines were consolidated with the New York Central & Hudson River, and the name of the merged company again became the New York Central Railroad. Two years later a new type of freight locomotive, the *Mohawk* (4-8-2), appeared. The first one, engine 2500, Class L-1a, was delivered from Schenectady in July 1916. The L-1 classes were not a complete success, and a newer design, known as Class L-2, proved highly successful in heavy, fast freight service. These were followed by the L-3 and L-4 classes which were built up to 1944, some by Alco and some by the Lima Locomotive




Works. The L-3a, L-4a and L4-b classes were dual-purpose locomotives, for either passenger or freight service. The *Berkshire* (2-8-4) type, for use on the Boston & Albany with its heavier grades, was brought out in 1926, and 55 in all were built by Lima through 1930. The last steam locomotives for freight service, and the last steam locomotives to be constructed by Alco in the United States, were seven 2-8-4 type, Class A-2a, built in 1948 for the Pittsburgh & Lake Erie, a controlled line of the New York Central.

THE DEVELOPMENT of locomotives for passenger service was marked by the introduction in February 1927 of an epochal locomotive, No. 5200, Class J-1a, the first *Hudson* (4-6-4) type rolled out of the Schenectady Works. The *Hudsons*, perhaps the New York Central's most famous passenger engines, rapidly took over the operation of the "name" trains from the *Pacifics*. The *Hudsons* were built in considerable numbers, the last of which were the J-3a's, fifty of which were turned out in 1937. We come now to the Central's last, but not the least famous, steam passenger locomotives—the *Niagara* (4-8-4). The first one, No. 6000, Clas S-1a, was delivered by Schenectady in March 1945, followed by 24 others, Class S-1b, and one Class S-2a, No. 5500, delivered in June 1946. These phenomenal locomotives quickly demonstrated their ability to handle the heaviest passenger trains with ease. Their tenders, carried on 14 wheels, have a coal capacity of 46 tons and a water capacity of 18,000 gallons. For a time these were operating between Harmon and Chicago without change.

Mention might be made of a number of other types of Central steam locomotives, not previously discussed. The 0-6-0 type switching locomotive came into prominence in 1890, superseding the 0-4-0 type. The last 0-6-0's were the B-10 and B-11 Classes. Their work was largely taken over by 0-8-0 type switchers such as the U-1, U-2 and U-3 Classes. A few of the 0-10-0 type, Class M-1, were also acquired for hump yard service. A limited number of *Mallet Compounds* of 0-6-6-0, 2-6-6-2 and 0-8-8-0 wheel arrangements, Classes NB-1, NE-1, NE-2 and NU-1, were also on the roster. The NU-1 was also used in classification yards, too.

The Central's first diesel-electric locomotive, No. 1525, was delivered in February 1928 by Alco in conjunction with General Electric and Ingersoll-Rand for service on the West Side freight line in New York City. It was the forerunner of a large and ever-increasing fleet of diesel-electric switching locomotives.

In June 1928 the first diesel-electric

road freight locomotive, No. 1550, Class DEf, also an Alco product, was received. This was placed in trial service on the Putnam Division for a few years with doubtful success, after which it was withdrawn and stored. In 1946 it was converted to a hump trailer. In March 1929, Engine 1500, Class DEp, the first diesel-electric passenger locomotive, was delivered by Alco, which had constructed it in conjunction with General Electric and the McIntosh & Seymour Corporation. It is reputed to have been the first diesel-electric passenger locomotive in the United States. But the day of the diesel-electric road engine had apparently not yet arrived, and No. 1500, after a period of trial service, was stored and finally dismantled.

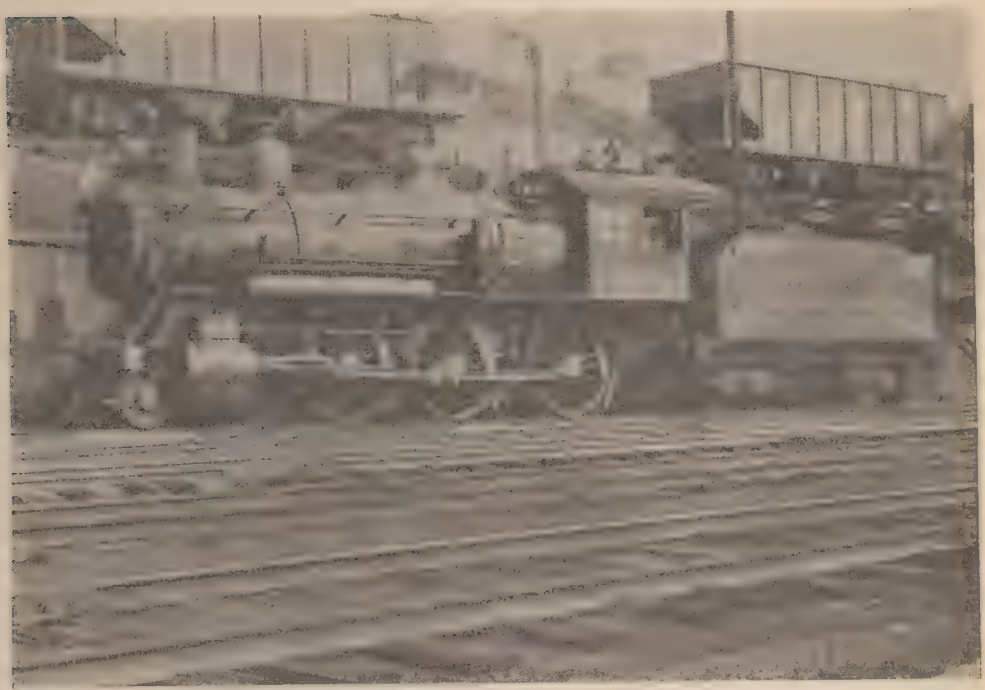
The year 1944 marked the introduction on the NYC of the first successful diesel-electric road freight locomotives, which were furnished by the Electro-Motive Division of General Motors. The initial order consisted of A units, Nos. 1600 to 1603, and B units, 2400 to 2403. Four units totalling 5400 horsepower are generally employed on long freight trains formerly handled by *Mohawk* type steamers. In 1945 the first practical diesel-electric road passenger locomotives were received from EMD and consisted of two units of 2000 horsepower each. Received in that year were eight cab units, Nos. 4000 to 4007, and second units, Nos. 4100 to 4103, and soon after trial runs they were assigned to the *Century* between Harmon and Chicago. Many additional freight and passenger diesel-electrics have been added. In 1948 a new design, designated as a diesel-electric road switcher appeared. These have 1000, 1500 and 1600 horsepower, and are ideally suited for branch-line passenger trains. They can also be operated in multiple-unit on freight trains, varying the number of units to suit the length of the train. Today, the New York Central System claims to have the largest diesel-electric fleet on any railroad in America. As it enters its 100th year, "Finis" is about to be tagged onto steam power on all of its eastern lines. While a few steam passenger trains are still operating out of Harmon at the time this is written, it is reported that when additional diesel-electric units now on order are received, steam power will be eliminated entirely east of Cleveland. Existing modern steam power is gradually being transferred west to the leased Michigan Central and Big Four lines.

**EARLY AMERICAN.** Author Bob Schmid's dossier on New York Central engines, which is considerable, shows Schenectady-built No. 564 was twice renumbered, into 728 and 1064

EIGHT-WHEELER 266 was outshopped from Central's own works at Syracuse in 1884, eventually renumbered to 737 and 1070, Class C-4. Gent standing in gangway is 999's Charlie Hogan

OLD 999, standing in yards near Grand Central Station soon after it came out of West Albany Shops. Noted 4-4-0 went from Class C-14 to C-14a after receiving new boiler; later numbered 1086, it was changed back to 999 for exhibition purposes

BUCHANAN'S first Ten-Wheeler, No. 948, came out from Schenectady in June 1899 with 20x26 cylinders, 70-inch drivers, picked up two numbers in lifetime, 2026 and 2000



ONE OF Bill Buchanan's 4-6-0s from Schenectady toward close of career which started in July 1899, at Sedgewick Avenue in Bronx while in service on Putnam Division. Originally was 956, then 2034, finally 2008

ENGINE 2980 before departure on first train pulled by Atlantic type out of old Grand Central Terminal in 1901, fresh from Schenectady. Steamer later became 3980 and 980

ALCO TEN-WHEELER started out in F-2d Class in 1907, wound up in F-12d. Note that, as far as steamers go, they're beginning to pick up later-day lines

AMONG FIRST to be fitted with piston valves was this Consolidation type of 1901 from Schenectady. In the distance beyond head end can be seen cab and tender of 1407

CONVERTED in 1912 from Consolidation 2436, originally built by Alco in 1905, Mikado became 3612, later 1204. Cylinders, 25x32, were large for times

THIS PACIFIC was among first of type on Central, in December 1903. Later 3599, the 75-inch-drivered job was transferred to the Boston & Albany, where it became 514

CONSOLIDATION was built for New York Central & Hudson River Railroad by Alco, '08. Eight-wheeled tender carried 12 tons of soft coal. Engine had firebox 6¼ feet wide, 9 feet long

FIRST MOHAWK. Class L-1a was not entirely successful when outshopped by Alco's Schenectady plant in 1916, but newer design L-2 made grade for heavy, fast freights

FIRST DUAL-PURPOSE Mohawk for passenger and freight pulls has 12-wheeled tender and Alco builderplate at head-end dating back only to October 1940. Steam east of Cleveland soon will be item of past

HUDSON was sent to Halethorpe, Md., for Fair of Iron Horse in 1927 as soon as it came from Alco shops that September. This was stop enroute. Type took over name trains from Pacifics

FIRST NIAGARA had 75-inch drivers when it left Alco plant in Schenectady in March '45 later changed to 79 inches Type pulled Central's heaviest passenger trains between Harmon and Chicago

# Angus, the Scot

HUGH G. JARMAN

THERE is a motto in the great Angus Shops of the Canadian Pacific Railway at Montreal. It reads: "Don't say it can't be done, for chances are you'll rue it; for some darn fool will come along and he will surely do it." This was the case of the cast-iron freight-car wheels. CPR needed them by the thousands, and was annually paying out dollars by the million to get them.

Living up to their famous motto, the company concluded that just because no other railway on the North American Continent had ever made all their freight-car wheels was no good reason why Canadian Pacific couldn't make theirs.

Ever since the end of World War II Canadian Pacific has been casting over 80,000 freight car wheels annually, and in order to keep the furnaces warm between times they turn out over 4,430,000 pounds of other castings each year. Besides this, some 5475 tons of material come from their blacksmith forges, as well as 985,000 bolts, pins, nuts and rivets.

Primarily, of course, Angus Shops is the Company's 200-acre main repair plant for the construction and maintenance of 87,992 units of motive power and rolling stock. It is also a second home for almost 7500 men and virtually a self-contained city. The payroll is over $25 million annually.

Equipped with its own power station, hospital and ambulance service, heating plant, police force, fire department, lunchrooms, shop canteen service, and 160,000 square foot recreation center, the shops and the men who work them are prepared to tackle any job. Handling tiny lock

**ANGUS SHOPS** turn out 80,000 car wheels annually, among a vast assortment of other items, large and small—everything from delicate lock tumblers to giant locomotives

**ONE WAY** to test a newly molded car wheel is to haul off and give it a good belt with a sledge hammer. This may not be as scientific as X-raying, but it's more fun

springs or tearing down giant locomotives is all in the day's work.

From this mechanical city pours a continuous stream of new and rebuilt locomotives, coaches, car wheels, castings, switch points and even all the nuts and bolts the company uses to hold the railway together.

On the average, one engine and 88 freight cars, completely overhauled within the shops, leave "Angus" daily to span the nation on the company's twin steel ribbons.

The Shops consist of 31 main and 37 auxiliary buildings, 38 acres of floor space and 50 miles of track. The buildings include a locomotive repair shop, four passenger car repair shops, two large freight-car repair buildings, a cast-iron wheel foundry, a general castings foundry and a frog and switch repair shop.

In addition to the bolt and nut manufacturing shop, and the blacksmith shop, there is the truck repair shop; a car-metal working machine shop; a large woodworking mill; an electrical repair shop; a cabinet and varnishing shop; a brass machine and tinsmithing shop; and the upholstering and repair shop.

There are also a test and inspection department, and open freight car repair tracks accommodating over 1000 cars. A scrap and reclaiming dock, which handles over 430 tons daily, turns back hundreds of thousands of dollars into the company coffers.

THIS ENORMOUS plant has a very large appetite. It chews up annually over 40,000 tons of steel and 16,800,000 feet of lumber, finishing up with a desert of 18,000,000 kilowatt hours of electricity and 13,200,000 cubic feet of gas. It takes a yearly drink of 33,600,000 cubic feet of

**WHEELS for trailing and leading trucks of locomotives, right. Below: Checking wheel flanges with a gage at Angus Shops**

water to quench its thirst. All this is required to keep "Angus," the Scot, producing the goods which like life-giving blood flow through the rail arteries of Canada.

Before CPR started its gradual conversion to diesel motive power, five new steam locomotives were constructed here each month. Approximately 1000 varnish cars were shopped annually in the passenger department and in addition there are facilities for the output of 10 new passenger cars per month.

The freight car shops, one each for wooden and steel equipment, have a capacity of 100 shop repairs daily and 14 new cars, and together with the freight repair tracks, now turn out 21,000 repaired freight cars per annum. Last year 88 cars of all types received repairs there daily. Among the jobs done to these cars were conversion work; modernization; improvements to brakes; lighting; springing and trucks. Also last year automobile freight cars began rolling into the Angus Shops to be fitted with wider and staggered doors, as the automobile manufacturers made their product wider and longer.

Many unusual and emergency jobs have taken place here. One winter a CPR liner was threatened with a winter tie-up in the Montreal Harbour ice—an engine had broken down. Angus Shops turned out the special 5200-pound forged steel piece needed and rushed it to the ship, the locomotive repair men installed it and the liner sped out of the harbour and down the St. Lawrence River just as the ice was closing in.

During War II Angus turned to help the Canadian Government by using its shop capacity to turn out 1400 18-ton Valentine tanks to fill the breach while other tank factories were tooling up. The plant turned out engines for corvettes, range finders for naval guns, delicate asdic equipment for searching out U boats under the ocean's surface, and miles of lathe beds to be used in many other Canadian war factories.

*Richard J. Canty*

**MIGHTY MIDGET** is the NX-5, which was conceived and built by New York Centrallers Paul Zielinski and Lou Raether at the road's Niles, Mich. Shops. Designed to switch switchers into and out of work pits, push-button doodlebug has increased shop efficiency by ten percent

# Information Booth

**Conducted by ALFRED COMSTOCK**

**Q** *Can you publish a picture and account of the unusual little shunting locomotive which I saw recently working around the New York Central's Niles, Michigan Diesel shop? It looks to me like a home-made affair.*

**A** You are right about this engine being home made. We are indebted to Richard J. Canty, 302 N. 4th Street, Niles, Michigan for the story of this locomotive and the accompanying photograph.

Paul Zielinski and Lou Raether, two veteran New York Central shop men pooled their abilities to create "NX-5", as the little switcher is officially known, out of some bits of scrap and salvage materials. In doing so they increased the efficiency of the Niles shops by ten percent. All NYC diesel switchers come to Niles for their general overhauls. Shop crews tear the yard growlers right down to the rails and build them back up to sparkling new paint jobs. Zielinski and Raether noticed that the crews spent many hours waiting for completed overhauls to be moved out of the shop work pits and for others to be brought in. One day they got an idea to solve the problem and thus NX-5, alias the doodlebug, was born.

The doodlebug is a mighty midget. It consists essentially of a four-wheel truck from an old RA electric locomotive. Zielinski and Raether fashioned battery boxes on each end, installed standard diesel storage batteries inside and rigged up three-speed pushbutton controls. They also built in a gearshift to give the midget forward and reverse operation. Three days after the doodlebug was dreamed up it was

standing on the rails ready to go to work. Switching switchers is NX-5's job. An apprentice operates it from the ground. He pushes the buttons that make it go and walks beside the mite while it nudges switchers into the shop for their beauty treatments and tugs them out again when they are ready for the road. Nobody ever pulled horsepower or traction tests on the doodlebug, but Zielinski estimates that it develops 200 horsepower and a tractive effort of 7500 pounds. Once, just to see what it could do, they coupled two fully-equipped switchers to their mighty creation and pushed the "go" button. The doodlebug quickly took off with them in tow.

Five or six complete locomotive overhauls a month are performed at the Niles shop. Three more doodlebugs, offspring of the original NX-5, are now in operation on the New York Central. Two are employed at Collinwood, in the Cleveland, Ohio area, where Raether is now Diesel shop superintendent, and one at Harmon, New York. Zielinski, co-inventor of the NX-5, is Niles shop general foreman.

**Q** *What became of the Norfolk Southern's streamlined rail buses that ran to Virginia Beach, after abandonment of the railroad's interurban trolley system, and before substitution of highway bus service?*

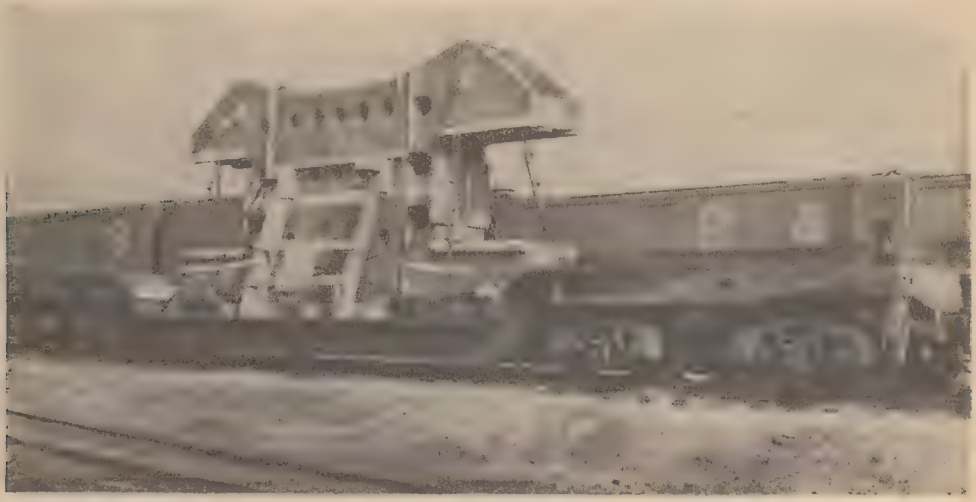
**A** The Carolinian type rail buses were sold in 1949 to Cuba, where they are now hauling passengers into and out of Havana.

**Q** *Kindly supply information on the substitution of diesel-electric locomotives in place of steam power on the Canadian National, between Edmonton and Winnipeg, via Saskatoon.*

**A** Inaugurated last April, this latest CNR motive power changeover has resulted in the saving of almost one day in the running times of fast manifest freight trains for this run of approximately 800 miles. The great saving in time results largely from elimination of coal and water stops. The diesels haul trains nearly 25 percent longer than those formerly pulled by steam engines, handling 50 to 60-car rattlers over this stretch of line in about 25 hours—not much slower than the running time of transcontinental passenger trains.

**SPECIAL HANDLING** and routing were required when the giant casting below was moved by the Pennsy from Jersey City, N. J. to the U. S. Naval Ordnance Plant at South Charleston, West Va. for machining prior to installation at Wyman-Gordon Co. in North Grafton, Mass. It will form part of a huge hydraulic press for the manufacture of structural parts for jet airplanes

*Daniel E. McNulby*



*W. R. Hicks*

**IMPORTANT JOB** of attaching private car to Scenic Limited was handled by Western Pacific's veteran 0-6-0 No. 153 at Sacramento. Engine is now off-roster

**Q** *I have heard of a project under way to eliminate the "clickety-clack" music of locomotive and car wheels passing over the track. How will this be accomplished?*

**A** The Dayton Rubber Company has developed a rubber-cushioned railroad tie plate to cut down roadbed noises. Made of a combination of synthetic and natural compounds, the rubber inserts cushion the shock between rail and tie, increasing the life of both, according to firm spokesmen. Tests of the insert are being made in Kentucky.

**Q** *When did the Louisville & Nashville Railroad change from broad to standard-gage? Were the tires of the engines set in from both sides or only one side?—H. G. Aires, 1913 Oak Tree Drive, Los Angeles 41, Calif.*

**A** Between 1896 and 1900, inclusive, the gradual change was made from 4 feet, 9 inches to the standard 4 feet, 8½ inches. This change was so slight that we feel sure that it was not necessary to go to the extra labor and expense of setting locomotive tires in from both sides.

**Q** *Where is the headquarters of the Lehigh Valley Railroad?—L. Barrie, 329 N. Dragoon, Detroit 9, Michigan.*

**A** The Lehigh Valley maintains its principal office in its own building at 425 Brighton Street, Bethlehem, Pennsylvania, and also has an important office in the building at 143 Liberty Street, downtown on Manhattan Island, in New York City. System shops and the stores department are located at Sayre, Pennsylvania, near the state line, a short distance south and east of Elmira, New York. The dining car department is at Easton, Pennsylvania.

**Q** *Where was the telephone first used for train dispatching?*

**A** The telephone was first regularly used for train dispatching in 1882 by E. H. Whorf, superintendent of the narrow-gage Boston, Revere Beach & Lynn Railroad. His successor, C. A. Hammond (1883-

*W. R. Hicks*

**INSPECTION** engine napped at Dunn, N. C. is owned by the Durham & Southern Railroad. Hicks and a helper shoved it out into sunlight for photo

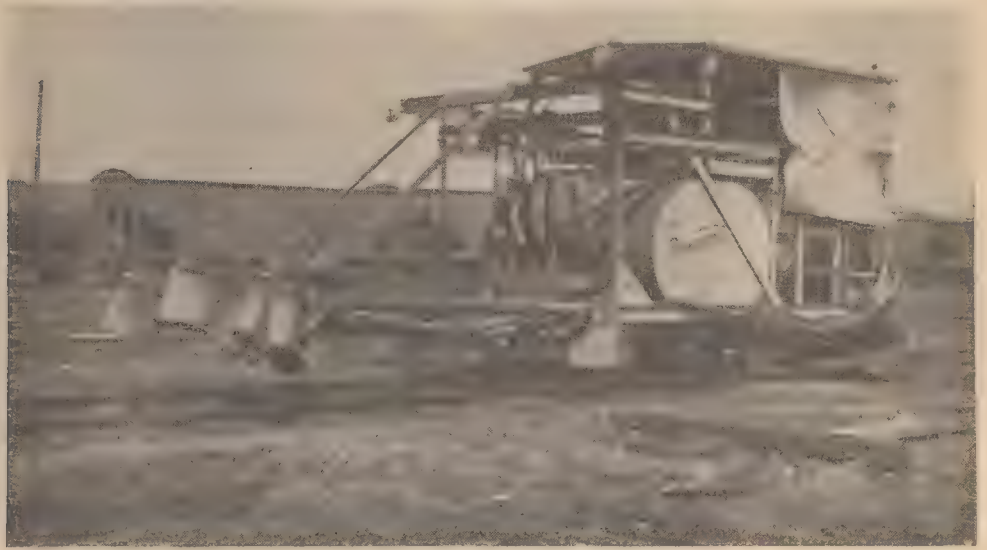
1893), greatly improved the system, adding several features for securing accuracy and responsibility. First known use of the telephone for train dispatching in standard-gage railway operations was on the Ravena-Schenectady branch of the New York, West Shore & Buffalo Railroad (now the New York Central's West Shore line) in January, 1882.

**Q** *Please print something about the Black Mountain Railway in North Carolina.—Ken Marsh, 801 Yadkin Street Kingsport, Tennessee.*

**A** The Black Mountain Railway is affiliated with the Carolina, Clinchfield & Ohio, its only connection, which in turn is leased jointly by the Atlantic Coast Line and the Louisville & Nashville Railroad. Incorporated April 21, 1910, in North Carolina, the Black Mountain connects at Kona with the CC&O. Trackage extends between Kona and Burnsville, North Carolina, 10.72 miles; Micaville to Bowditch, N. C., 2.11 miles; total, 12.83 miles. Sidings, 1.08 miles. Rail is 60 pounds to the foot, laid to standard gage. In 1927 the Black Mountain abandoned 11.20 miles of main line between Eskota and Pensacola, N. C., and in 1928 abandoned 0.87 miles near Burnsville. Equipment consists of one locomotive. The road is operated for freight and express service only. Passengers desiring to travel from Kona to Burnsville should buy a ticket to Spruce Pine, N. C. and use a bus. The latest in-

**WEED BURNER** which looks like something from Mars is built by Fairmont. This specimen is kept in NYC yards at Elkhart, Ind.

*Robert C. Schell, Jr.*



*David R. Connor*

**STEAMER** getting a drink of water among the maples was snapped at Elkland, Pa. in May 1951. B&O No. 3134 was originally built for Buffalo & Susquehanna

formation we have shows six employes on the Black Mountain's list of personnel and seven stockholders. Headquarters are maintained from the parent Clinchfield's General Office in Erwin, Tennessee.

**Q** *I read in the British "Railway Gazette" that a train on the Norfolk & Western consisting of 12,950 tons, was hauled 112 miles non-stop between Williamson, West Virginia and Portsmouth, Ohio in 3 hours and 49 minutes. How long would it take to examine the Westinghouse Air Brakes, before the start of such a run?—K. T. Groves, 100 Railway Housing Settlement, Sydney, N.S.W., Australia.*

**A** It would take about half an hour to pump up the brakes on such a train, which would be about 190 cars long. Both the train and the fast and long non-stop run are quite possible on this heavy tonnage steam road, which runs mostly downgrade between Williamson and Portsmouth. Locomotives used are heavy N&W-built articulated steamers.

**Q** *The University of Illinois has been conducting research at its Engineering Experiment Station in an effort to reduce the high expense of railroad car bearing costs. What have been the results of this investigation?*

**A** While not conclusive as yet, the university's findings point to opportunities for further investigation of car bearing costs and research to reduce them. Use of solid journal wheel bearings, standard for more than a century on American railroads, costs them three-quarters of a million dollars a day. A new bulletin of the university shows costs of $7.59 and $8.53 per 1000 freight car miles on two typical large railroads. The 1951 figures were respectively 42½ and 57 percent greater than 1948, indicating a three-year increase of one-quarter million dollars for the two-million freight cars of the nation. Most of the money went to routine maintenance. On one road this cost $5.42 per 1000 car miles; accidents and fires from hotboxes cost thirty-five cents; delays and repairs, $1.82. On another railroad studied, maintenance cost $5.59; accidents and fires twenty-nine cents; delays and repairs, $2.65. The bulletin presents a cost investigation procedure which can be used by any railroad interested in studying its own expenditures.

**Q** *Outline the Northern Pacific Railroad's radio network installation program.*

**A** Another 200 miles of Northern Pacific mainline, between Mandan, N. D., and Glendive, Mont., will be served by a dispatcher-to-train radio hookup. The first 205 miles of this type of communication were completed last year between Mandan and Dilworth, Minn. Base radios will be installed at 10 wayside stations. They will be arranged so that they can be connected to the dispatcher's telephone circuit. Thus a train dispatcher at Glendive will be able to talk directly with the crew of any freight train in the 200-mile territory east of Glendive.

NP is also expanding its radio facilities up in the Minnesota mining country. Dual frequency radios will be installed on switch engines assigned to work on Minnesota's Cuyuna Range. Radios will keep the switches in contact with the trainmaster at Ironton, who will have a two-way radio in his automobile. A score of switch engines used in the Duluth-Superior area are also being equipped with radios. There, two base radios will be set up in yardmasters' offices.

Correction: Kenneth E. Kipfer of Florence, Kentucky has called our attention to an error in our January, 1953 Information Booth. We stated that the Westmont Incline in Johnstown, Pennsylvania, with a maximum grade of 71 percent was the steepest railway in the world. As he points out, that distinction goes to the Lookout Mountain Incline Railway at Chattanooga, Tennessee, which has a grade of 72.7 percent.

*Associated British & Irish Rys.*

HIGH DRIVERS on this British locomotive were almost as high as the boiler. Scene was snapped on England's Great Northern, before nationalization

**Q** *Do you have any figures showing the cost of modern passenger cars and diesel-electric locomotives?*

**A** The average cost of new standard passenger-train cars installed by Class I railroads in the five-year period of 1947-1951 was: coaches $94,318 each; combination cars $96,322, parlor cars $95,161, dining cars $132,090, club, lounge and observation cars $133,755; postal cars $50,357; baggage, express and other passenger-train cars $45,765.

Costs of diesel locomotive units for freight service in the five-year period ranged from $52,211 to $253,877, the average being $157,112. Passenger diesels cost from $100,118 to $300,735, averaging $200,361. This means that the average cost of a three-unit diesel freight locomotive in this period was $471,000 and that of a three-unit passenger locomotive was $601,000.

**Q** *What's the latest on the dieselization progress in England?*

**A** British Railways is introducing multiple-unit diesel trains for passenger traffic with an initial expenditure up to 500,000 pounds. The new policy is to employ lightweight diesel units wherever suitable to reinforce or replace steam service. First area to get the new diesel trains will be Yorkshire, where service by diesel coach between large population centers will be most effective in improving rail operation and developing travel.

Each of the new diesel units will consist of two coaches, either one or both powered by two 125-horsepower engines located under the floor. These units can be driven from either end, and may be run either as a two-coach train or as part of a train of up to four units (eight coaches) coupled together. Mechanical transmission will be used, and the cars will be of lightweight construction, body and underframe made together. Passengers will be able to see out easily, and each unit will have toilet accommodations, space for luggage and will be heated in winter.

**Q** *Do any railroads in the United States have women presidents?*

**A** Three carriers in this country are so distinguished. The Rock Island Southern has Mrs. Lucy R. Welsh for its chief executive officer; Mrs. G. W. Page is president of the Cape Fear Railways, Inc., of Fort Bragg, North Carolina; and Beatrice Joyce Kean guides the destiny of the Tremont & Gulf Railway in Louisiana. The Tremont & Gulf is a 94-mile long carrier, owning 6 oil-burning locomotives; 138 freight cars; 2 passenger, and 15 miscellaneous cars, and with 79 employes—quite a sizable operation to direct. We might add that since the unfortunate accident in the November windstorm of 1950, in which Ellis D. Atwood lost his life, Mrs. Atwood now presides over the small-scale Edaville line, of South Carver, Massachusetts.

Progress by women workers in American industry over the past 50 years was the theme of an address by R. J. Morfa, chairman of the board of the Katy, at a meeting of the newly-organized Women's Traffic Club of Houston, some months back. Morfa said: "Over the past fifty years, women have been steadily, although somewhat inconspicuously, carving out noteworthy careers in the business world, and during that span of time women workers have proved to be a great revitalizing force in American industry. Business women today are quietly helping to spark the nation's business, and they're holding down their jobs with the effectiveness and quality of performance that industry has come to expect of them."

Singling out the railroad industry, Morfa said that women have a substantial stake in American railroads today. The industry employs approximately 65,000 women workers. In the development of improved designs and methods, the railroads and railroad car manufacturers have sought the feminine viewpoint—many of the features of modern-day trains: air-conditioning; pastel interiors; panoramic windows, etc., are the direct results of feminine influence.

# THE RISE AND DECLINE OF THE *MIDWEST*

PROF. JOHN F. DUE

FOR THREE DECADES the electric interurban railroad played a major part in the economic life of the Midwest. As a transitional step from the main-line railroad to the auto, bus and truck for short distance travel and small-lot shipment, it provided a substantial contribution to the economic development of the area. The story of its meteoric rise and equally sudden disappearance, and of the role it played in the transportation picture of its day is a drama rarely rivalled in the economic history of the country. Interurbans were built in almost all parts of the United States, although there were only a few lines in the Deep South and in the thinly settled portions of the Plains and Rocky Mountain states. Their development reached the highest stages, and their contribution to the economy was greatest in four Midwest states—Ohio, Indiana, Michigan and Illinois. Yet in the first three states, the interurban is only a memory today. In Illinois some sections of the old systems remain but are, apart from the portion of one of the Chicago metropolitan area lines, the Chicago, South Shore & South Bend which extends to South Bend, Ind., substantially different in character from the lines of thirty years ago.

The typical interurban was characterized by four features: electric operation, primary emphasis on passenger business, use of cars heavier and speedier than city streetcars, and extension beyond the limits of one city or metropolitan area. Precise definition of the term "interurban" and sharp delineation from other carriers was never easy, as there was no clear line of demarcation between the interurban and city streetcar lines and the electrified portions of main-line railroads. Credit for originating the term is usually given to C. L. Henry, Member of Congress from Indiana during the 1890s and owner of the Anderson, Ind., street railway system. He was one of the first to conceive the idea of the Indiana interurban system, and a founder of Union Traction.

First intercity electric lines were direct outgrowths of city street railway systems. Perfection of electric traction in the 1880s resulted in rapid replacement of cable and horsecar lines and construction of many new routes. Soon the streetcar lines began to feel their way out beyond city limits into suburbs, and then on to adjacent towns or resort spots. They were built in almost all cases on public road rights-of-way. Poorly-constructed track and the low speed of the early city cars narrowly limited their feasible range. This type of intercity electric line reached its highest stage of development in New England.

By the later part of the Nineties, the potentialities shown by these pioneer routes led to the development of the bona fide interurban. Separte rights-of-way were obtained, usually paralleling roads or steam railroads, and stations were built. Longer, heavier cars, often with express

*This article originally appeared in the University of Illinois' Current Economic Comment and is reprinted by permission of the university's Bureau of Economic & Business Research and the author, who is Professor of Economics at the university.*

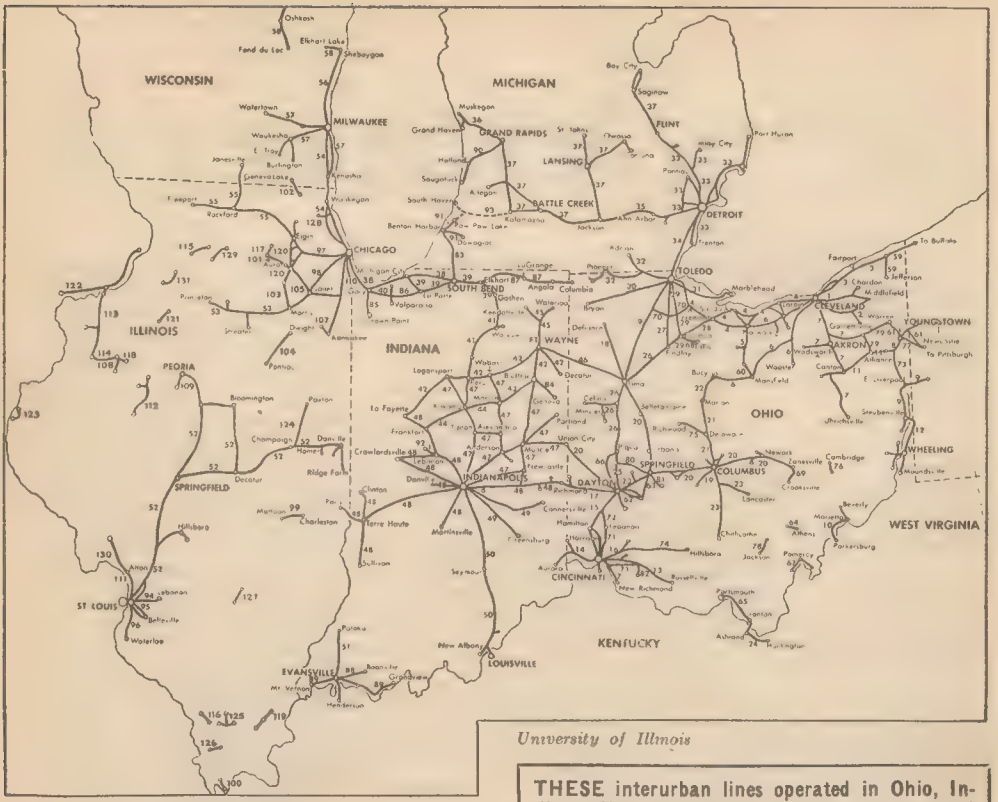
# INTERURBAN

*Don MacBean, Glen Ellyn, Ill.*

**CHICAGO, AURORA & ELGIN. Roarin' K is later-day example of fading Midwest interurbans. Scene shows two sets of cars being coupled in Wheaton yards for rush-hour work June 22, 1945. No. 300 is still in service**

compartments, were designed specifically for high-speed intercity operation. Package freight and express business was cultivated. It is difficult to identify the first interurban line built in the Midwest. The line from Newark to Granville, O., built in 1888, is often regarded as the earliest road. The first Indiana interurban was the 11-mile line between Anderson & Alexandria, built in 1898.

Progress was slow in the Nineties, and by the turn of the century the networks were barely underway. But shortly after 1900 a great boom in interurban construction developed, and by 1910 the systems were largely completed. New companies were chartered; stock sales were promoted; lines spread rapidly between the major cities and towns; through links were built to connect adjacent systems. Some of the lines were poorly conceived, with little analysis of traffic potentialities and duplication was not uncommon. Just as every town was determined to have a railroad in the 1860s and 1870s, every town was determined to have an interurban. Diverse interests were involved in the development and financing of the companies, particularly in Indiana where the same enterprises developed interurban railroads and electric power facilities, the trolley-wire poles carrying the intercity high-tension lines and bringing power to smaller towns and rural areas. Some interurbans were developed by city transit companies, themselves often power-company controlled. Some were developed by independent local interests—the inter-




*University of Illinois*

**THESE interurban lines operated in Ohio, Indiana, Michigan and Illinois between 1900 and 1925 or so. To find your favorite juice roads, simply match numbers on map with corresponding ones in accompanying list. Note that some titles followed by OER indicate portions of Ohio Electric Railway prior to reorganization in 1920. Those with C&LE or IRR in parentheses eventually became parts of Cincinnati & Lake Erie or Indiana Railroad. Through consolidations or reorganizations, some titles changed from time to time, but in most cases the ones given were used during significant periods of many individual roads. In few cases, other titles are listed in parentheses too**

1. Cleveland & Eastern Traction
2. Cleveland & Chagrin Falls Ry.
3. Cleveland, Painesville & Eastern Ry.
4. Lake Shore Electric Ry.
5. Norwalk & Shelby RR.
6. Cleveland, Southwestern & Columbus Ry.
7. Northern Ohio Traction & Light
8. Youngstown & Suburban Ry.
9. Steubenville, East Liverpool & Beaver Valley Traction
10. Monongahela, West Pennsylvania Public Service
11. Stark Electric Ry.
12. Wheeling Traction
13. Cincinnati, Georgetown & Portsmouth Ry.
14. Cincinnati, Lawrenceburg & Aurora Ry.
15. Cincinnati & Dayton Traction (C&LE)
16. Cincinnati, Milford & Blanchester Traction
17. Dayton & Western Traction (OER)
18. Lima & Defiance RR. (OER)
19. Ohio Electric Ry. (C&LE)
20. Indiana, Columbus & Eastern Traction (C&LE)
21. Columbus, Delaware & Marion Ry.
22. Columbus, Marion & Bucyrus Ry.
23. Scioto Valley Traction
24. Ohio Valley Electric Ry.
25. Dayton & Troy Electric Ry.
26. Western Ohio Ry.
27. Toledo, Bowling Green & Southern Traction
28. Fostoria & Fremont Ry.
29. Toledo, Fostoria & Findlay Ry.
30. Toledo & Indiana RR.
31. Northwestern Ohio Railway & Power
32. Toledo & Western Ry.
33. Detroit United Rys.
34. Detroit, Monroe & Toledo Short Line
35. Detroit, Jackson & Chicago Ry.
36. Grand Rapids, Grand Haven & Muskegon Ry.
37. Michigan Railway Lines (Michigan Traction)
38. Chicago, Lake Shore & South Bend Ry.
39. Chicago, South Bend & Northern Indiana Ry.
40. Gary & Valparaiso Ry.
41. Winona Interurban Ry.
42. Indiana Service Corporation (IRR)
    (Ft. Wayne & Northern Indiana Traction)
43. Marion, Bluffton & Eastern Traction Co.
44. Northern Indiana Power Co. (IRR)
45. Fort Wayne & Northwestern Ry. (IRR)
46. Fort Wayne, Van Wert & Lima Traction (OER)
47. Union Traction of Indiana (IRR)
48. Terre Haute, Indianapolis & Eastern Traction (IRR)
49. Indianapolis & Cincinnati Traction
50. Interstate Public Service Co. (IRR)
51. Southern Indiana Gas & Electric
52. Illinois Traction System
53. Chicago, Ottawa & Peoria Ry.
54. Chicago, North Shore & Milwaukee RR.
55. Rockford & Interurban Ry.
56. Milwaukee Northern Ry.
57. Milwaukee Electric Railway & Light Co.
58. Eastern Wisconsin Electric Co.
59. Pennsylvania & Ohio Traction
60. Mansfield & Shelby Interurban
61. Pennsylvania-Ohio Electric Ry.
62. Dayton, Springfield & Xenia Southern Ry.
63. Springfield & Xenia RR.
64. Hocking-Sunday Creek Traction
65. Portsmouth Street Ry.
66. Dayton, Covington & Piqua Traction
67. Ohio River Electric Ry.
68. Tiffin, Fostoria & Eastern Electric Ry.
69. Southeastern Ohio Ry.

urban companies typically supplied local transit service in the smaller cities they operated through. In the Midwest, unlike the situation in other parts of the country, the steam railroads stayed out of the interurban field. It is interesting to note that the southern New England lines were acquired by the New Haven Railroad at fantastic prices, which helped to bring the road ultimately into bankruptcy. On the Pacific Coast, most of the interurbans passed into the hands of the newer steam railroads in the area, which were anxious for additional freight feeder lines to allow more effective competition with their older rivals. The Western Pacific, for example, acquired the companies which now constitute the Sacramento Northern to improve its competitive position with the Southern Pacific.

Development of the largest interurban in Illinois, the Illinois Traction System, now the Illinois Terminal Railroad, paralleled the national trend. When William B. McKinley purchased the Danville street railway system shortly after 1900, its interurban line to Ridge Farm gave him the idea of a through interurban to St. Louis. In 1903 he built from Danville to Champaign, and gradually filled the gap to St. Louis, partly by construction, partly by purchase of existing lines. In 1907 the link between Decatur was completed and the through route finished. In the same year the Springfield-Peoria line was placed in operation, too. McKinley, who also developed the Illinois Power Company, had plans for a Peoria-Chicago line which would have provided a through route from St. Louis to Chicago, but the gap between Mackinaw Junction and Streator on the McKinley-owned Chicago, Ottawa & Peoria was never closed. Illinois Traction later acquired extensive properties in the East St. Louis area, and built its own bridge across the Mississippi.

By 1915 about 7500 miles of interurban track, the equivalent of two lines from New York to San Francisco, extended through Michigan, Ohio, Indiana and Illinois, with a few hundred miles in Wisconsin. Of these states, Ohio had the most mileage (2780), followed by Indiana (1798), Illinois (1590) and Michigan (1027). These are figures from the U. S. Department of Commerce's *Census of Electric Railways, 1917*. The figure for the entire country was about 18,000 miles. Outside of the states mentioned, Pennsylvania New York and California had the next greatest mileages, with substantial amounts in Massachusetts, Connecticut, Texas, Iowa and Utah. Although Ohio had the most mileage, the network of lines was most complete in Indiana. Lines

70. Lake Erie, Bowling Green & Napoleon Ry.
71. Interurban Railway & Terminal of Ohio
72. Lebanon & Franklin Traction
73. Youngstown & Ohio River RR.
74 Cincinnati & Columbus Traction
75. Columbus, Magnetic Springs & Northern Ry.
76. Ohio Service Co
77. Mahoning Valley Ry.
78. Wellston & Jackson Belt Ry.
79. Cleveland, Alliance & Mahoning Valley RR.
80 Springfield, Troy & Piqua Ry.
81. Springfield & Washington Ry.
82. Felicity & Bethel RR.
83. Southern Michigan Ry. (59)
84. Bluffton, Geneva & Celina Traction
85. Gary & Southern Traction
86. Gary & Interurban RR.
87 St. Joseph Valley Traction
88. Evansville Suburban & Chicago Ry.
89. Evansville Rys.
90. Grand Rapids, Holland & Chicago Ry.
91. Benton Harbor & St. Joe Railway & Light
92. Lebanon-Thorntown Traction
93. Kalamazzo, Lake Shore & Chicago (operated by Michigan Rys but never electrified)
94. St. Louis, O'Fallon & Lebanon Ry.
95. East St. Louis & Belleville Electric Ry.
96. East St. Louis, Columbia & Waterloo Ry.
97. Amora, Elgin & Chicago RR
98. Chicago & Joliet Ry.
99. Central Illinois Traction Co.
100. Cairo & St. Louis Ry.
101. Chicago, Aurora & DeKalb RR.
102. Chicago, Harvard & Geneva Lake Ry.
103. Fox & Illinois Union Ry.
104. Bloomington, Pontiac & Joliet Electric Ry.
105. Aurora, Plainfield & Joliet Ry.
106. Joliet & Eastern Traction Co.
107. Chicago & Interburban Traction Co.
108. Peoples Traction Co.
109. Peoria Railway Terminal
110. Hammond, Whiting & East Chicago Ry.
111. East St. Louis & Suburban Ry.
112. Illinois Central Electric Ry.
113. Rock Island Southern Ry.
114. Galesburg & Western RR.
115. Sterling, Dixon & Eastern Electric Ry.
116. Murphysboro & Southern Illinois Ry.
117. DeKalb, Sycamore & Interurban Traction
118. Galesburg & Knoxville Traction
119. Southern Illinois Railway & Power Co.
120. Aurora, Elgin & Fox River Electric Ry.
121. Galesburg & Kewanee Electric Ry.
122. Clinton, Davenport & Muscatine Ry.
123. Keokuk Electric Co.
124. Kankakee & Urbana Traction
125. Coal Belt Electric RR.
126. Central Illinois Public Service Co.
127. Centralia Traction
128. Northshore & Western Ry.
129. Northern Illinois Electric Ry. (Lee County Central Electric Ry.)
130. Alton, Jacksonville & Peoria Ry.
131. Dixon, Rock Falls & Southeastern Ry.

SPEEDRAIL. End came for Milwaukee Rapid Transit & Speedrail Company few years ago shortly after fatal accident of Labor Day railfan excursion. Scene above (December 23, 1950) was of two ex-Shaker Heights cars at West Junction, both Milwaukee-bound No. 63 out of Waukesha ran express to downtown Milwaukee while No. 300 from Hales Corner line followed as local

radiated out of Indianapolis in twelve directions, and in the peak years over 500 interurban trains a day arrived and departed from the Union interurban terminal. Only three cities in Indiana with populations over 5000 were not served by interurbans—Madison, Vincennes and Bloomington.

The major routes in the Midwest were:

1. The lake shore lines from Detroit through Toledo to Cleveland, with a line eastward from Cleveland to Erie and Buffalo.

2. The eastern Ohio routes from Cleveland to Akron, Canton, Pittsburgh and Wheeling.

3. The Cincinnati-Cleveland routes, one via Springfield, Columbus and Delaware; the other via Lima and Findlay.

4. The Cincinnati-Toledo route with a branch from Lima to Fort Wayne.

5. The east-west route from Terre Haute to Indianapolis, Dayton, Springfield, Columbus and Zanesville, with alternative routes between Indianapolis and Dayton via Richmond and Muncie.

6. The Indiana north-south route from Louisville via Indianapolis and Kokomo to Elkhart and South Bend, with a connection from South Bend to Chicago.

7. The Indianapolis-Fort Wayne, Fort Wayne-Lafayette and Lafayette-Indianapolis lines.

8. The Michigan routes—the north route from Detroit to Flint and Bay City, and the east-west route from Detroit to Jackson and Lansing, and to Battle Creek, Grand Rapids and Muskegon.

9. The routes out of Chicago, eastward to South Bend; northward to Milwaukee and Sheboygan; northwestward to Rockford, Janesville and Freeport, and westward down the Illinois Valley to Princeton.

10. The Illinois Traction System from Danville and from Peoria via Springfield to St. Louis.

As the systems became integrated, long-distance trips became possible. A person could travel by interurban from Freeport, or Sheboygan to Utica, N. Y.; from Louisville or Cincinnati to Bay City. Actually such long-distance travel was unimportant because of the numerous changes required and because the interurbans were slower than the steam railroads. A few missing links that were never completed would have provided a more complete system—the east-west direct route from Chicago to Toledo and Cleveland was not finished, although for a time only a fifteen-mile gap in western Ohio remained, between Columbia and Pioneer, and a twenty-mile line from Paris to Ridge Farm would have connected the Illinois and Indiana systems. The connection between the Indiana and northern Illinois was more apparent than real; the only link being the roundabout line via Warsaw, and little through traffic ever developed. Michigan was connected with the others via Toledo. A connection was almost realized between Benton Harbor and Kalamazoo—Michigan Railways operated under a lease for a few years the line of the Kalamazoo, Lake Shore & Chicago, which reached Paw Paw Lake, also on the interurban line running north from Benton Harbor, but the Kalamazoo line was never electrified, as had been planned.

Apart from the main lines, some branches were built, plus a substantial number of isolated lines, especially in Illinois. Many connected small towns. As a rule, they were projected toward larger cities but never finished. The Dwight-Pontiac line was a segment in an unfinished route from Bloomington to Joliet and Chicago. One of the most fantastic projects was that for a line from Chicago to New York, to be built in an absolutely straight line between the two cities. A few miles were placed in operation between LaPorte and Woodville Junction, north of Valparaiso, Ind., and for years the cars carried destination signs of New York on one end and Chicago on the other. No more track was ever built, and the LaPorte line was eventually abandoned.

Roughly 150 separate interurban companies were in operation in the peak years in Ohio, Michigan, Indiana and Il-

*Collection of W. L. Hay, Canton O*

**OHIO PUBLIC SERVICE COMPANY.** Kuhlman-built No. 60 operated on once-vast system, here enroute to Marblehead in July 1936 after leaving station at Lakeside

linois. Much of the mileage was concentrated in the hands of a relatively few companies. The Illinois Traction System and its affiliate, the Chicago, Ottawa & Peoria, had about 700 miles, or approximately half the total. The Terre Haute, Indianapolis & Eastern and the Union Traction, each with over 400 miles of line, operated a large portion of the Indiana mileage. Two companies ran most of the lines in Michigan.

It is difficult to obtain an accurate figure of investment in the interurban properties, but it would appear that the total was between $500 million and $600 million in the four states. In Illinois in 1912 when almost all lines (about 1500 miles) were in operation, the cost of the properties was $120 million, according to the *Annual Report, Illinois Railroad and Warehouse Commission.* The Chicago elevated lines and the Terre Haute, In-

**INDIANA RAILROAD.** Cars made farewell trip on Indianapolis-Fort Wayne run in 1941, but most mileage was gone two years before when fantrip shot was made of Kokomo-bound No. 1150 on trestle

*S. D. Maguire*

dianapolis & Eastern, with only a few miles in Illinois, were omitted. Lines between the larger cities were reasonably profitable from the beginning. In 1912, a typical year, the Terre Haute, Indianapolis & Eastern showed operating revenues of $2,690,000, operating expenses of $1,553,000, net operating revenue of $1,137,000, and net income of $552,000 on a reported investment of about $25 million. Many, however, had excessive fixed charges, and passed through one or more receiverships. Some smaller lines had insufficient business to cover operating costs, and remained in business for only a few years. The industry as a whole showed a reasonable return on investment in the profit and loss statements of the earlier years.

*J. L. Diaz, Chicago*

SOUTH SHORE LINE. Chicago, South Shore & South Bend is considered nation's No. 1 interurban by many afficionados, and four-car train in Michigan City, Ind., adds weight to their statements

The basic features of interurban operation did not change greatly over the three decades the lines were in existence. Single-car trains were the standard operating unit, with multiple cars confined to excursions and rush-hour operation out of large cities. Two-man crews were typical. This fact, plus the relative absence of restrictive operating rules, kept costs per-train-mile far below those of the steam railroads. A figure of 20 cents per-car-mile was typical. Trains operated on infrequent schedules, in many cases only once an hour during the daytime. After 1910 the earlier wooden cars, with their clerestory roofs, elaborate colored glass and cane seats, gave way to new steel cars with plush seats. Track standards were improved, and automatic signaling systems were installed. A few lines, such as those in western Michigan and Scioto Valley Traction in Ohio, utilized third rail as a source of power to avoid the loss of the trolley contract, which was a constant nuisance. The third rail, however, presented a fatal attraction for livestock and small boys, and encountered some difficulty with heavy snow. Third-rail operation was most common in California.

By 1910 the interurban had become a major element in the transportation picture of the Midwest. Primarily the lines were passenger carriers, a service yielding 80 percent or more of total revenues.

*John Erickson, Chicago*

**WINONA INTERURBAN RAILWAY,** one of four titles in history of Winona Railroad. Single-truck double-end closed No. 2 was Peru city car built in 1906 by McGuire-Cummings

**LAKE SHORE ELECTRIC RAILWAY.** Popular interurban ran along south shore of Lake Erie between Cleveland and Toledo; vanished some 15 years ago

*Dudley Weaver, Kent, O.*

**NORTHERN OHIO TRACTION & LIGHT COMPANY.** Train shed at Akron (1926) served as house for Cars 634, 2023 and 1473, as well as loading-up spot for Youngstown-bound jitney

The interurban's most important contribution was efficient and speedy service from rural areas and small towns to adjacent cities, breaking down the isolation of farms and small villages. Frequent service with numerous and convenient stops facilitated travel to market, to school, to entertainment. The trend toward shopping in larger centers in preference to rural and village stores, which became so marked after the development of the automobile, was started by the interurban. A shopping trip to a city thirty miles away became a simple and routine matter instead of a major and time-consuming excursion. Likewise, weekend trips to the country were made easy, and many interurban companies developed countryside amusement parks and resorts.

The interurban became the standard means of travel between the larger cities served, up to a liimt of about 150 miles, although there was some longer distance travel. As a consequence, the steam railroads lost a large portion of their shorter distance travel. The interurban, slower on the long runs and somewhat less comfortable, offered advantages in frequency of service and conveniently-located stations. As long-distance travel increased, parlor cars were often carried and limited-stop schedules were operated. A few lines operated overnight sleeping cars, between Louisville and Indianapolis, Champaign and St. Louis, Peoria and St. Louis. Another asset of the interurban was informality and avoidance of the impersonal nature of main-line railroads. The usual practice of running into the downtown areas of cities was a convenience, too, especially to the shopping traffic, but was a serious source of delay for long-distance travel. In almost all cases, city streetcar tracks were used, so speed in getting into and out of larger cities was drastically limited to that of the city cars. Once in the country, however, the speed performance was good despite frequent stops and light track. High acceleration plus speeds up to 70 and 80 miles an hour allowed the interurban railroad car to average 30 to 35 miles an hour.

Interurban freight business was of much less importance. Few of the lines had freight motors, and freight was handled in passenger cars or in freight cars pulled by passenger cars. The interurban lines sought package freight and they handled farm produce, especially milk. They were an improvement over the stream railroads in speed of delivery, and they took a substantial portion of the less-than-carload business of the railroads. By providing same-day delivery of goods from wholesale centers to retailers, they materially speeded the flow of goods through distribution channels. The development of Indianapolis as a wholesale center was aided by the great network of lines fanning out from the city. Carload freight business was for the most part unimportant, being confined largely to movements of coal and gravel from mines or quarries on the lines. Although the lines were of standard gage, little interchange of traffic with the steam roads developed in the Midwest. The steam roads had already blanketed the area and were not anxious to help the growth of the freight business for their competitors. It was difficult for the interurbans to gain direct access with sidings to factories and warehouses already served by the steam roads. Operation on city streets seriously restricted freight car operation. It was physically difficult and sometimes impossible because of the sharp curves, and was highly unpopular with city officials.

Few industries in the history of the United States have ever collapsed with the speed at which the interurban systems came to an end. In the fifteen-year period from 1927 through 1941 the great network built up twenty years before had all but vanished, most of the lines being abandoned between 1929 and 1937. Not a single mile of the great Ohio-Indiana-Michigan network, except the line from Chicago to South Bend, remains in passenger operation today, and only about 40 miles of track out of the original 6000 is still in use in freight service.

The interurbans were destroyed by one development—the coming of the automobile. For the remaining passenger traffic, the bus was cheaper to operate, since no track maintenance was necessary and the operating unit was smaller. Servicewise, the interurban was in many respects superior, especially when track was well-maintained, but not sufficiently so to offset the cost differences. In states where bus competition was allowed, abandonment of the interurbans came sooner than it might otherwise have. Even when competition was prevented, the interurban companies soon took to bus operation themselves. The name, "Indiana Railroad," is still to be found on the orange buses which serve much of central Indiana. As for freight, the bulk of the interurbans' traffic, less-than-carload, was of a type well suited for truck transporation, which necessitated less handling, and even the carload traffic was of a short-haul character and subject to truck competition.

The auto was invented in roughly the same period as the interurban, but the latter progressed much more rapidly. Electric motors were simpler than automobile engines and were perfected more quickly, while mechanical difficulties and the lack of good roads held the growth of the automobile to a snail's pace for twenty-five years. Meanwhile, the interurban network was built, and millions of dollars were invested in the industry with little thought of the dangers from the growth of automotive transportation. There are few parallel instances of mass misdirection of investment in a period in which the handwriting of technological obsolescence was already on the wall. The case was one of mistaken expectations about future business.

Even as early as 1910 autos and jitneys were commencing to make inroads upon passenger travel to such an extent that few interurbans were built after that date, but the effects were not serious until after World War I. The jitneys were the first buses—usually large autos with seats added—operated mostly by individuals in city and suburban service on best-traffic routes. As early as 1915 they were a serious headache to transit systems, but regulation soon put them out of business and the streetcar reigned supreme in city transit service for another fifteen years. The war itself greatly aided technological development of the motor vehicles, as World War II did the airplane. The decade of the Twenties saw the primary transition to the motor vehicle. The great road network built during the period, plus mechanical improvements, brought the automobile into common usage. By the end of the decade the effects on interurban business had become so serious that many small lines plus a few important ones had been abandoned, and doubts about the future of the industry were arising. In general, however, the system was largely intact in 1930. The most important lines

CHICAGO & INTERURBAN TRACTION COMPANY. Line operated from Windy City to Kankakee; was called Kankakee Line

*Maguire*

**YOUNGSTOWN & SOUTHERN. Road picked up designation of oldtimer within last decade. Setting here was of line car No. 50 on outskirts of Youngstown in December '45**

abandoned before 1930 were the western lines of the Michigan system.

The final big blows against the industry were dealt in the 1930s, when the combination of the depression and the continued growth of the automobile caused such a drastic drop in interurban revenues that in many cases they fell quickly below operating cost. A number of the remaining companies in the states east of Illinois were consolidated into two large companies, the Cincinnati & Lake Erie in western Ohio and the Indiana Railroad. Drastic economies were effected and strenuous efforts made to regain traffic by lower rates and purchase of lightweight equipment. Most mileage was gone by 1939, and in February 1941 the cars of the Indiana Railroad made their farewell trip on the Indianapolis-Fort Wayne run. This route was of particular importance since the two cities are not connected by a direct railroad route.

In Illinois roughly half the lines suffered the same fate as their neighbors to the east. The Illinois Traction System had succeeded in building up sufficient carload freight business, especially in the area between St. Louis and Peoria. Some trackage has been abandoned since, and passenger service has been drastically curtailed. In April 1952 service was discontinued by the Illinois Terminal Railroad from DeLong to Danville on the original main line. The immediate occasion was the desire of Danville to repave the street on which the tracks ran, but the real reason was the loss of the coal and gasoline traffic this line once provided. The line from Decatur through Bloomington to Mackinaw Junction was abandoned last February, and passenger service was discontinued east of Champaign last April 26th. Today the line is primarily a freight hauler, distinguished from main-line railroads only by its use of electricity for power.

Three lines still operate from Chicago into the surrounding territory. These roads have retained sufficient passenger business, partly because traffic congestion renders them less subject to automobile congestion. The Chicago, Aurora & Elgin and the Chicago, North Shore & Milwaukee, which rely largely on passenger traffic, have been in financial difficulties for some years despite the useful function they serve in providing rapid transit serv-

*Dave Lewis, Jerome, Idaho*

**ILLINOIS TRACTION SYSTEM.** Predecessor of ITRR was founded by Senator William McKinley, for whom bridge across Mississippi was named —span today but not interurban line interests prospective buyers. Scene: Name train leaving East Peoria on right-of-way parallel to highway

*James Buckley*

INDIANA SERVICE CORPORATION Non-delivery of trolley buses saved Fort Wayne's cars for awhile—note double wire above No. 510 on Route 51 waiting for new vehicles Line later became portion of Indiana Railroad

ice. The Chicago, South Shore & South Bend has a much heavier freight traffic, and the industrialization of the area it serves has been increased greatly.

In other parts of the country the trend has been much the same. The New England network was gone by 1930. Throughout the country, lines were abandoned during the Thirties, and some of these which survived until World War II were discontinued in the postwar period. Today there are only twelve passenger-carrying interurbans in the United States, including the four in Illinois. Three are in Iowa, two in Pennsylvania, and one each in Maryland, Oklahoma and Oregon. There are two intercity passenger lines in California, but they operate only within metropolitan areas, and there are seven passenger interurbans in Canada. Several of the ones left in the U.S. are close to the point of abandonment, either in entirety or for passenger service. Others are primarily freight lines. A number of the former interurbans on the West Coast continue in freight service, but those grew up with the economic development of the area and gained substantial carload freight business. They have lost the interurban characteristics, and some have even abandoned electricity for diesel power.

The lines in the Midwest, and elsewhere, have vanished so completely that they almost forgotten. In many cases it is difficult to trace their paths. An overgrown embankment, an unused bridge abutment, a wrecked transformer station, the remains of old cars serving as henhouses—these are the only traces through the countryside. Occasionally, a short stretch of track down the main street of a town, or an old station rebuilt into a garage or store serves as reminder of the heavy interurban cars which rolled through in the days when the automobile was young and undeveloped.

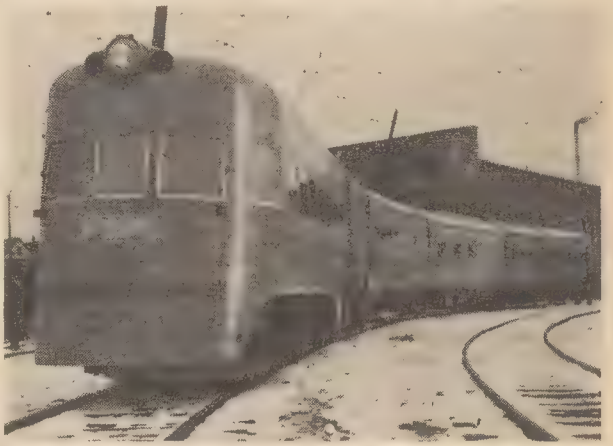
*George Rousch, Chicago*

MILWAUKEE ELECTRIC RAILWAY & TRANSPORT COMPANY. Four-mile road handles carload freight only; makes connections with Chicago & North Western at St. Francis, with Milwaukee Road at Powerton

*W. L. Hay*

**INTER-CITY RAPID TRANSIT RAILROAD.** One-spot of Ohio line, on loop at State Hospital outside Massillon, had seen service with Northern Ohio Traction & Light as No. 641

**NORTH SHORE LINE.** One of three interurban roads operating out of Windy City is Chicago, North Shore & Milwaukee, whose Electroliners entered high-speed passenger service to Milwaukee year or less before Pearl Harbor



**DETROIT UNITED RAILWAYS.** No. 7529 worked line to Toledo until wrecked in head-on collision with Car 7096 in '26 near New Port, Mich. DUR cars sometimes ran MU with Lake Shore Electric through to Cleveland

*Richard Steinheimer, La Habra, Calif.*

**PE IN LA. Closest approximation of subway in Los Angeles is Pacific Electric's mile tunnel run under Subway Terminal Building to get out of downtown area on rail lines toward Hollywood and Glendale. Here motorman checks roller before closing doors and heading out**

# Carbarn Comment

**Conducted by TED SANCHAGRIN**

BRANFORD. E. J. Quinby, president of the Branford Electric Railway Association and author of our article on this operating trolley museum of Connecticut (April), says he has received a flood of responses by mail and in person, and "not the least of the benefits we enjoy from the publication of that story is the presence of a real custodian on the property, in the person of one James Burchard.

Burchard read the story and wrote to Quinby, who replied confirming his assumption that BERA needed a resident watchman to halt vandalism. Burchard is a partially disabled Navy vet, and he has had experience as a railroader, working as assistant yard clerk for the Southern Pacific in Los Angeles.

"In my reply," said Quinby, "I suggested we explore the possibility of him becoming allied with our project. Next

thing I knew, he was phoning me at 6:30 one morning from Newark, N.J., and inquiring, 'Where do I go from here?' He had crossed the continent on a Greyhound bus. Before the sun had set, we had him installed at BERA Brae, and we haven't had any more troubles from vandals since he took up his residence there. Jim walks with a cane, but he packs a terrific wallop with that weapon."

Burchard was born and raised in Death Valley and knew Death Valley Scotty—visited his mansion out there. He has driven a 20 Mule Team borax wagon train, using a jerk line to control the starting and stopping and a bucket of rocks to throw at the left or right rump of the lead mules to steer.

* * *

LAST TRIP. At the controls most of the way on the Illinois Terminal Railroad's last interurban passenger train from Champaign east to Watkins in April was the man who took the first car from Urbana to St. Joe on Thanksgiving Day in 1902, Claude Sowers of Urbana, who had retired in 1945. Regular motorman was Russell Smith of Decatur, whom Sowers had broken in twelve years ago.

Aboard were 35 railfans, including C. C. Burford, holder of the last ticket sold in the Urbana passenger office. He said it would go into his scrapbook alongside the final ticket purchased for the closing ITRR run to Danville in the spring of '52. Burford, an historian, noted that another aboard was H. R. Cole, agent at St. Joseph who has been with the railroad since 1909, at St. Joe since 1918 and who will continue as freight agent there.

* * *

EMBARRASSED. Harry Christiansen, trolley expert of the *Cleveland News*, wrote an item recently for that paper which was headlined: "Streetcar Men Caught With Their Wires Down." Like the painter who finds himself surrounded by wet paint in the corner of a

**SIXTH AND MAIN.** Station employe in PE's LA terminal pauses to watch last of crowd walk or run to Bellflower car, end of passenger service on Santa Ana line. Line is double-tracked for mile or two out of station, four-tracked all way to Watts. Cars, whose plush seats replaced cane-covered ones which sat two and three abreast, are used with modernized 5100 class vehicles in forming PE rail service to Southern District

*Steinheimer*

*Gordon S. Crowell, Berkeley, Calif.*

**KEY SYSTEM.** Its trains run from Bridge Terminal in San Francisco, across bay via Frisco-Oakland Bay Bridge, fanning out to East Bay points in Berkeley, Oakland and other suburban areas. Most Key units were manufactured by Bethlehem Steel Corporation, as was F train approaching San Pablo Avenue stop on trans-bay service between SF and Berkeley

room, Cleveland Transit System had taken down the wire from the abandoned Superior Avenue line, stranding a streetcar (No. 4126) and a line work car (No. 0518) outside the St. Clair carbarn, miles from any active trolley car lines.

Morris Stone of University Heights, O., says the streetcar was one of five 4000-type vehicles earmarked for Shaker Heights Rapid Transit three years ago. CTS never rebuilt or delivered any of these cars to Shaker Heights. No. 4126 happened to be the only 4000 left outside the barn at East 129th Street and St. Clair Avenue when the lines were taken down. Shaker Heights says it will settle for a work crane instead.

The line car was stranded after being rebuilt there, and at the last report was eight miles from the Newburgh & South Shore Interchange at Harvard Shops, where it is to be shipped by rails to the Shaker Heights yards, storage place for equipment to build the new CTS rapid transit route.

* * *

OLD CLIPPING. Among old magazine items that occasionally pile up here, there's one which says the great runner, Paavo Nurmi, developed his rolling gait that was virtually unbeatable by running behind streetcars in his native Finland.

* * *

ERA HEADLIGHTS. Recent issues of the monthly publication of Electric Railroaders Association had several bits worth noting. One was an account by

Henry D. Quinby 3rd saying that an organization he is a member of, Modern Transit Committee, was largely instrumental in convincing Public Service Coordinated Transport it should put PCC cars, not buses, in the subway of Newark, N. J.

In part the article said, "The Committee spent over $300, wrote 600 letters, saw written by outsiders over 100 letters which appeared in the *Newark News*, made 200 official contacts, appeared before 15 Public Utility Commission hearings, eight of them with legal counsel, and distributed over 5000 leaflets."

Another *Headlights* item was a notice of what the pamphlet calls an ERA merger—the marriage of two members, ERA's 1952 president, Herman Rinke of Yonkers, N. Y., to the former Helen Elaine Stitzel of Canton, Ill. She and her brother James are both ERA members. *Headlights* remarked, "Said merger was effected under the laws of the City of

BALLOON TRACK. F car of Los Angeles Transit Lines negotiates sharp curve in front of Union Pacific Terminal to pick up some passengers, mainly dining-car waiters off duty. In smoggy background City Hall towers over rest of city

*Steinheimer*

*C. T. Steeb*

**RESTORATION.** Sign on opposite side explains that this was El Paso's No. 1 mule car, donated to El Paso Electric Company by W. Floyd Payne, a pioneer in promotion of street transportation. Vehicle is being reconditioned so it actually can be drawn again by mule

*Harold McMichael, Waterford, Ont.*

**MUTUAL.** Canadian Pacific's two Ontario electric lines are Grand River Railway and Lake Erie & Northern, which explains why GR seems at home on LE&N right-of-way at Waterford

Frankfurt, Germany, and with the dispensation granted by the Frankfurter Oberlandesgerichtspraesidenten, or County Court to you."

* * *

REQUEST. Joseph Hardy of Bridgeport, Neb. (Box 1172) wonders whether anyone would let him have statistical data on the old streetcar railway he remembers from his childhood in Cheyenne, Wyo., plus a postcard-size photograph or two of its equipment.

"Although I have followed the juicefan portion of *Railroad* for the past twelve years," he says, "I have never seen a mention of this railway. While it may not be of general interest, it happens that I was born in Cheyenne, and as a very small boy I remember a single-truck trolley line running down 16th Street from end to end, as well as track on Carey Ave. This was in the early Twenties."

* * *

HOPE. S. D. Forsythe, chief engineer of the Chicago Transit Authority, told 4000 members of the American Institute of Electrical Engineers that installation of a rapid transit system in the middle of superhighways is "one of the brightest hopes Chicago has ever known."

He said that in Chicago the Congress Street superhighway is being built to embody the idea of using the middle strip as right-of-way. "It will extend straight west from the heart of town to the county line, a distance of 15.4 miles. But the cost of providing rapid transit facilities in the superhighway ($250,000 a mile) is still beyond the ability of the CTA to bear alone at this time."

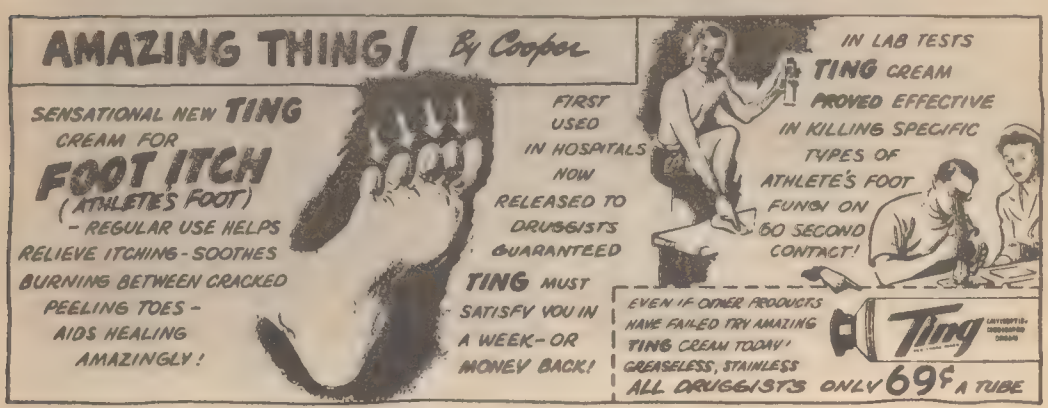
Under present conditions a two-track subway would cost $12 million a mile and a two-track elevated $5 million a mile. One rapid transit track with a ten-car train operating every two minutes would carry the same number of persons as 14 lanes of traffic could handle of private cars holding the accepted rate of 1.7 passengers per car.

* * *

CURTAINS. According to a *Believe It or Not*, passed on to Carbarn Comment by H. L. Kelso of Los Angeles, a trolley accident in Hungary is a capital offense, and the motorman is usually executed within three days.

* * *

FOURTH WONDER. Metropolitan Section of the American Society of Civil Engineers has selected the Seven Wonders of New York City, and their No. 4 pick is the city's subway system, whose routes extend 149 miles and constitute the world's longest, fastest, safest and most debt-ridden urban rapid transit network.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PLUMBER BLOOD must have been in veins of fellow who designed center setup above—toilet ball float painted bright yellow, with weathervane motif thrown in. Left: Metal with wood upright. Right: Steelplate shaped by hacksaw

Steel plate, welder holes, yellow paint

Cross of wood, yellow coffee can tops

SURE SIGN of chowhounds who call caboose home away from home is mounted luncheon-meat container, above left. Center: Auto sport rigged up hubcap. Right: Texas carplates and cutout wood circle. The only similarity among signs is consistent ingenuity

# HI-SIGN

ROBERT HEGGE

RUNNING AROUND with my camera recently in Arkansas and Texas I came upon these identification signs for cabooses in the yards of the Cotton Belt Route at Pine Bluff and Tyler. On the caboose track all crummies look alike. They have numbers, but what crewman would want to go from waycar to waycar to find home? They tried it, but it meant so much trouble and wasted effort that they mounted these signs atop their cabooses.

All-wood oddity hasn't lost crew yet

Switchstand motif, red and white paint

# THE LITTLE PIKE

PAUL N. WHITE

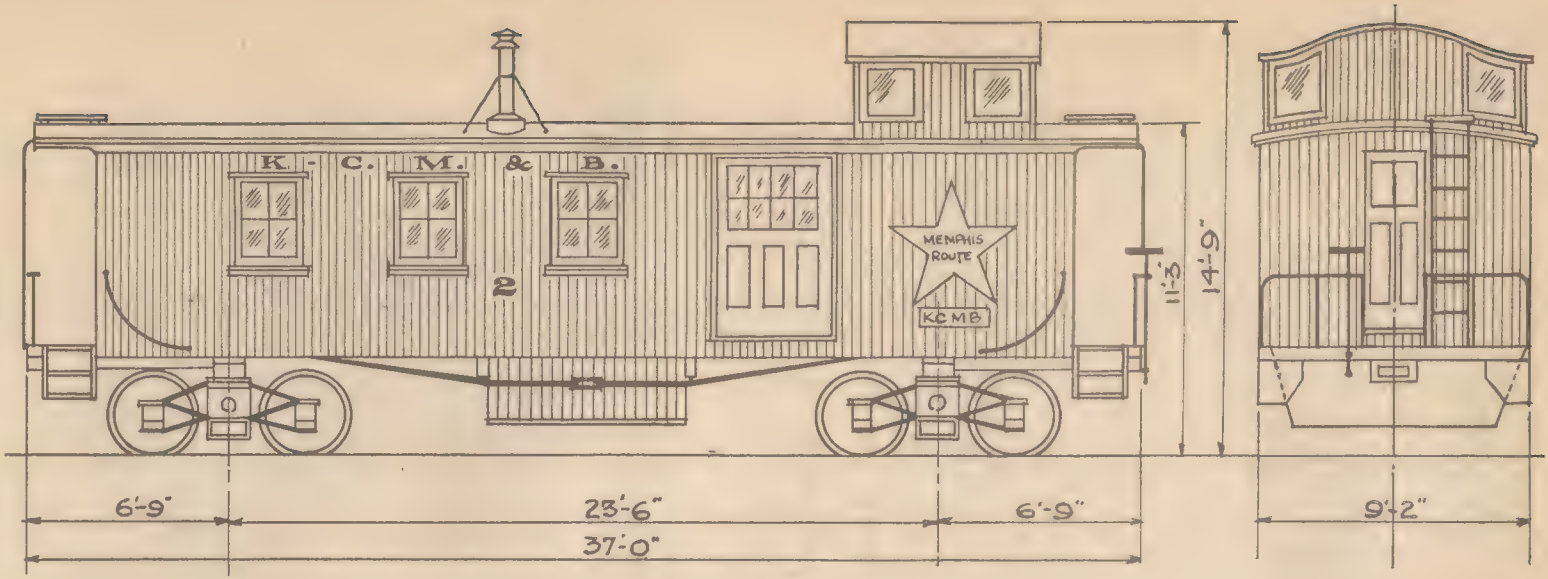
THIS MONTH we feature a real rarity among cabooses. It's rare not only because of its length (37 feet over coupler beams); or the antiquated sliding doors; but because of the unusual cupola roof. An old-timer, a railroader long since retired, once referred to this as a "monastery" roof and the term has always stuck in my mind.

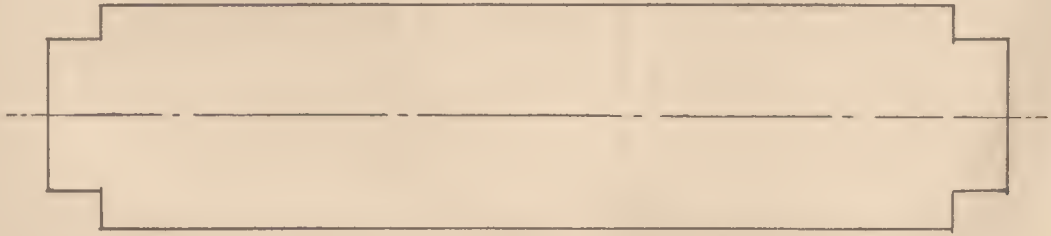
Built by the St. Charles Car Company of St. Charles, Mo., in 1890, this all-wood crummy was numbered 126, on the old KCM&B Railroad—the Memphis Route. Not only is it fairly easy to build if you take your time, but when it's finished you will have a car that can be the pride of your house track. While the author violently dislikes the word cute when applied to model railroadiana, this adjective has been used by so many non-modelers he is beginning to realize that maybe this baby does have some sex appeal.

Inasmuch as most of the construction material will be wood you can save yourself a lot of time and trouble by ordering the curved main roof, scribed sides, roof

**CABOOSE underbody above, ready for superstructure. Above, right: Ready for the decals, or hand lettering, if you're adept. Right: Partly completed body ready for sanding. All lumber is by Northeastern Scale Lumber of Andover, Mass.**

*One of the Sweetest-Looking Cabooses That Ever Rolled A Pike, This 1890 "Monastery" Hack Will Add Distinction to Your Layout*



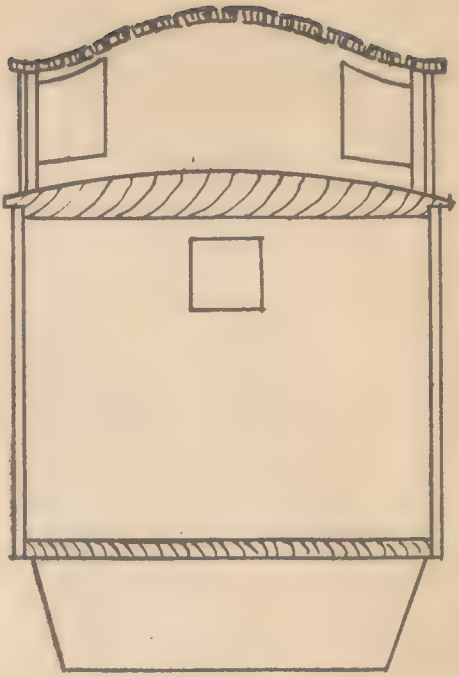
FLOOR PLAN
HO Scale

**DIMENSIONS can be scaled from prototype figures of front and end elevations, left. Floor plan is already HO scale. Drawing, right, is not scaled**

walks, truck bolsters, etc., from Northeastern Scale Lumber of Andover, Mass. Their scale lumber is really *scale* and beautibully finished. No sanding whatsoever is necessary. Step number one is to start with the sides. Cut these to size (don't cut out the ends yet) and after marking the window and door openings carefully cut them out with a razor blade, using a steel rule as a straight edge. Next, cut all windows out of acetate and cement into place. Instead of drawing in the muntin lines with India ink, I scribed them on the back of the acetate, after they were cemented into position, with a heavy scriber. I liked the effect much better and you are welcome to try it yourself. Cut the sliding doors out of the scribed siding, make and install windows as above, and cement into place. However I decided to leave the doors partly open. This makes it possible to see the inside in case you plan to incorporate a lot of interior detail.

Cut the main roof to length. Then carefully undercut the surplus wood back at each end with a fine Zona saw, in order to make the thin roof extensions over the platforms. It's quite a difficult job to get the *undercut* curve, and as I didn't have a curved chisel, I merely cut it straight back. It's hard to tell the difference. Next, cement the sides to the roof and set aside to dry.

Now for the floor. This also comes already cut to correct thickness and width by Northeastern. Trim to length and notch out for steps (see sketch above). Make two coupler beams from soft pine. Mark and drill fine holes for the railings. I used Penn Line's fine piano wire locomotive railing—which you can buy—bendng them to shape and inserting with a push fit into the holes. A drop of cement or a touch of solder will hold the rails together at the top where the ends meet. Mount the brake staff and wheel and cement into place. The steps are cut




from light bristol card stock and you will have to use a little patience here. Cement one side of the steps to the floor at each of the four corners. When dry, cement the opposite sides to the four inside corners of the coupler beams. Be sure they line up and are square. Next measure the steps for the treads, cut them out of bristol card and carefully cement them into place between the side pieces. It's best to use a pair of tweezers or else you'll find yourself all thumbs.

Now fasten wood or metal truck bolsters into place. Cut anti-sag rods from brass wire and insert each end into drilled holes. You can simulate the turnbuckles by cutting a short length from a piece of fine brass tubing, or radio "spaghetti," and cement them into place. Mount your couplers and a pair of caboose trucks. Cement tool box into place. This can be made of a solid block of wood cut to shape; but I made it from bristol stock.

*NOT ON THE WHEEL REPORT* — JOE EASLEY

"Look! Stealing our passengers again!"

Before cementing caboose body to the floor (using clamps or rubber bands) there are a few things you might want to do. Paint the interior; install a small pea bulb which can be lit by a penlight battery or by power picked up through the trucks; add a bunk, stove, table, etc. After the body is firmly fastened to the floor, measure the exact height and width of the ends and cut the two end pieces from the scribed sheet wood stock. Cut out door openings and make your doors out of light bristol stock, using acetate for the windows. Cement doors into place. Cement both ends to the car body and sand edges smooth.

NOW for the cupola. Due to the close tolerances involved here, you'll find it easier to make the sides and ends out of lightweight bristol card stock (first scribe them to match wood scribing on caboose sides). A blunt knife blade is good for this job. Cut out window openings and cement acetate windows on interior. Cement sides and ends together using 1/16-inch square pine strips at each interior corner. Before cementing cupola to roof be sure to paint the inside and the top of the caboose roof black (unless you want to actually cut a hole in the roof as in the prototype). However, the black paint serves to disguise the fact that there's no opening. After cementing to roof let cupola stand for a while until cement sets hard. Next is the problem of putting on the cupola roof. I first tried to make this of light bristol card stock, but the cement wouldn't hold it to conform with the curves because all card stock is springy to a certain degree. Also, it looked too thin and light for scale. That's why I turned to thin wood strips, which was probably the way the prototype was built anyway. Cement strips into place.

Don't overlook any of the finishing details as these are what finally make a model. I used a Kemtron smoke jack, with two small guy wires (thread) cemented into place. Install the curved hand rails, ladders, and finally roll it into the paint shop. Color, of course, is a matter of preference. I didn't have the color scheme for the prototype, but my choice was Floquiel Tuscan Red for the cupola roof and main roof; Light Grey for the cupola and caboose sides and ends; Earth for the interior floor and platforms; and black for steps and underbody details. Hardware and hand rails are black. For lettering I used my special road decals which were made up by Champion Decal Company of Fresno, California.

**THE LITTLE PIKE, introduced by Paul N. White in Railroad's July issue, apparently has struck a popular vein with most model railroaders of the build-it-yourself school. Emil Boysen went completely overboard about the new feature, calling it "the greatest and most wonderful addition to an already great magazine." Ralph Lapadula wrote, "I am a usually unexcitable railfan looking with polite scorn on those who pen wearisome mash notes to the editors, but your July article pleased me so much that I had to write to tell you of this."**

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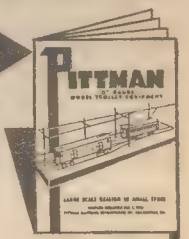

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Johnny-Mac grabbed his brother and plunged down the steep fill

THE YEARS HAD CAUGHT UP with the South End, caught up and passed it by, obliterating the glory of a former day, and leaving in its wake a lonely, run-down, ghost railroad. A caricature of relay rail and rotting crossties, it meandered in senile decay among abandoned diggings, gullied hills, barren valleys—and memories.

Some wag in the big office came up with the crack that the only reason the SG&A didn't sell the South End for junk was to have a place to pasture old broken-down trainmasters and season young superintendents. It was smart to make jokes about the South End—but not around Elyton. Not around Jim Diehl.

"Give us decent power and decent breaks," he'd tell anybody who would listen, "and this moth-eaten streak of rust would make money."

Of course, Jim didn't know much about

# BIG BROTHER

*Johnny-Mac Was Full of Bigshot Ideas, But He Forgot One Essential Thing—People*

JACK McLARN

rate structures and traffic agreements; and it wouldn't have done him any good if he had. The older heads around Elyton liked him too much to remind him all that hell needed was good people and a little water. Besides, except for Madge, the schoolma'am who came to teach and stayed to marry Jim, there were but two things in the big engineer's life. One was the South End, every crooked rail and rusty spike, every leaky locomotive and sway-backed caboose, every foot of the tunnelled and trestled conglomeration of engineering mistakes. The other was Johnny-Mac.

The South End knew Johnny-Mac of old, either from memory or from Jim. Johnny-Mac, the runty kid who made the best grades ever in County school, but who never won a fight. Never, that is, unless big brother Jim happened along. Then it was strictly Katy-bar-the-door, and somebody else got the bloody nose.

At the urgent suggestion of the County school board, Big Jim abandoned his efforts at education in the middle of the eighth grade and went to wiping engines for Charley Hoehn at the Elyton roundhouse. Johnny-Mac went on to State. And while he was clicking a slide rule and delving into sines and cosines, Jim bullied Leo Krausmeyer, the trainmaster, into putting him on firing. Johnny-Mac made Phi Beta and Jim got his engine the same day. And when Johnny-Mac got the nod from the SG&A for a student apprentice spot, Jim staged a celebration that landed him in the local clink for two days—got two weeks think-it-over-dammit time from the irate Leo Krausmeyer, and unmitigated hell from ninety-two pounds of brand-new wife. But nobody really held it against Jim. A student apprentice on the SG&A was somewhat akin to being a crown prince, in the days when crown princing wasn't such a hazardous vocation. Say the right words at the right time, keep out of controversial issues with high brass, and you had it made.

LIFE WAS GOOD on the South End. The young superintendents came and went like the seasons. They didn't bother anybody—just kept out of Leo Krausmeyer's hair, served out their sentences, accepted their parting gifts from the bored division personnel, and went their several ways. It was a comfortable routine, as unchanging as tomorrow morning's grits and gravy. Unchanging until Jim himself brought the exciting news down from the Piedmont Division connection at Branchville.

"It's Johnny-Mac!" he bellowed, slamming his 800 to a screeching, tire-flattening halt that brought Charley Hoehn out of the roundhouse, with an oversized Stillson in his fist and murder in his heart. "Johnny-Mac, by Joe! Johnny-Mac's comin' home!"

He slid down the hand-rails of the 800 face-first (to blazes with safety regulations!) cracked his two fists together like the current heavyweight champ, looked challengingly about him.

"And if any of you rule book jockeys and contract lawyers got stuff in your craws about givin th' kid a bad time," he said, "see me. Back o' th' roundhouse. Anytime."

Well, it was about time. The last student apprentice had been gone two weeks So everybody cursed Jim affectionately and adjourned to Ma Gannon's place to resume the checker games. Jim herded the 800 into the roundhouse before it died on him, scribbled his name on a work report, washed up and strutted down the road to the little house by the river. Supper was destined to get cold while Madge listened.

"So it really is Johnny-Mac," she said in her soft Alabama voice, when Jim finally ran out of breath. "Glad, Jim?"

"Glad? Look what the kid's done, honey, all by himself." Jim had his second wind. "Superintendent, and him not even thirty. You just wait—I'll be pullin' him in his own private car."

Madge smiled sadly, but kept her peace. Jim wasn't a good thirty-five himself, yet grey strands already glinted in his dark hair, and laugh lines had crinkled the corners of his pale eyes. And the bare little house—it had taken a lot of money to

keep Johnny-Mac at State. A lot of money out of an extra board-engineer's check could hurt.

"We'll fix up the front room for him, honey," Jim went on. "It'll be a big help to him, stayin' with us. I can keep him lined up so's he won't get in wrong—"

Now was not the time to remind him that Johnny-Mac hadn't been home since the day they buried Pete Diehl, their father. And that had been eight years ago.

Jim wanted to mark off and be on hand when Johnny-Mac hit the ground at Elyton. But the call office said no dice, so he grumblingly took a Branchville turn up to the main line. Coming back, as he was rolling along the twenty-mile roller-coaster of a grade that terminated at Elyton, the 800 bucking and snorting against the weight of its cargo, Jim noticed a yellow convertible moving along the lonely mountain highway paralleling the track. Some tourist maybe, wanting company; perhaps a railroad bug getting a bang out of a rusty old locomotive fogging up the hills. He felt friendly, so he batted the whistle lever in salute.

The convertible kept pace with him, the driver was waving with apparent enthusiasm. Jim waved back politely, scowling. The highway was tricky, it crossed the railroad at an angle not too far ahead. A sudden, blind crossing. If the driver didn't know it—.

He reached for the whistle lever again, a series of warning blasts ripped the air; he leaned from the cab window, crossed his arms, pointed ahead. But there was no slackening of speed, the yellow car matched the lunging of the 800. The crossing was but a few rail lengths away.

WITH A BLISTERING CURSE, Jim reached for the brake valve. He would check the speed of his train; that would give the unprintable idiot of a driver time to clear the crossing. There was a hiss of air—and hell to tell the captain.

A "dynamiter," a car with a jittery triple valve, thirty cars away, did what enginemen go grey-haired about—the brakes went down with a jarring thump. A coupler popped out of a Missouri Pacific boxcar like a cork out of a bottle, plummetted down and stuck between two crossties. There was a splintering, shrieking crash, the scream of flanges against rail. And when the dust settled, nine once pretty fair pieces of equipment were piled up in a deep cut like cornstalks in a hog trough. The 800 had lumbered to a panting, snorting stop inches away from a yellow convertible on a blind road crossing, and the South End was bottlenecked tighter than a fresh-opened pickle jar at a church picnic.

Jim picked himself up from the deck of the 880 where the abrupt stay in proceedings had thrown him, inquired profanely after the health of his shaken-up fireman, cursed his own stupidity and that of all automobile drivers with admirable impartiality, descended from the cab to survey the damage. It was plenty. And the driver of the yellow convertible, hatless, camel's-hair coat flapping in the wind, was striding toward him with the purposeful grimness of an angry man.

Kneading his knobby fists together, Jim advanced happily to meet him. "Why, you knuckle-headed idiot!" he howled in total disregard of the SG&A's Win Friends and Influence Customers program. "Look at what you made me do, blast it. Headin' for a grade crossin' like some dad-burned hill-billy full o' 'shine—I oughta bust you one, you—you—by Joe! Johnny-Mac!"

It was Johnny-Mac. The same touseled-headed kid, the runty one. Johnny-Mac. Jim's eyes filled.

"Johnny-Mac, you son of a something!" He was crushing his brother's hand. "Whyn't you let a guy know? Hell's bells, I'd of laid off and rolled out th' red carpet—"

Johnny-Mac pulled his hand free, scowled at the smear of grease on his pigskin glove.

"So it's you, eh?" he said, no friendliness in his edged voice. "Didn't you see me trying to sign you down for the past five miles? You've got a hot box thirty cars back, and if you'd do something besides play with that whistle, you might

look back once in a while and see what's going on. Is that how you railroad on this gut line?"

For a moment Jim stared at his brother in blank surprise. Then he shouted with laughter, the sound flung itself back from the bleak hills.

"By Joe! Learnt how to talk from down in your belly, din't you? Atta-boy—give 'em hell. Come on—you remember old man Michael. Old Timber-Foot. He's head shack o' this crew—"

Johnny-Mac didn't stir, just looked at Jim. The engineer frowned.

"What's bitin' you, kid?" he said uncertainly. "You ain't sore about this mess? Hell, it ain't nobody's fault. You saw what happened—blasted dynamiter—"

"Right now," Johnny-Mac said evenly, "I'm thinking about getting this main line open. I'll drive on to Elyton and get the derrick started, since you've managed to tear down every telephone line within reaching distance. And tomorrow—be in the office. With a representative, if you want one."

He paused, looked up at Jim's slowly reddening face.

"And, Jim," he said. "Off the right of way, things are just as they always were. Otherwise—not. Remember that, will you?"

He walked away, and Jim stood where he was while the convertible twisted down the crooked mountain highway. Timber-Foot Michael came limping up.

"I heard, Jim," he said. "Sorry. Sort of thought Johnny-Mac would be different. Looks like we got a 'New Deal' on our hands." He chuckled. "Say, that ain't bad. 'New Diehl'. Get it, Jim?"

JIM CARESSED the knuckles of his right hand. "Say that one more time, you wooden-footed has-been," he said gently. "And I'll forget you ain't the man you used to be. You can pass the word on that. Nobody's givin' th' kid a bad time. Nobody."

The session in the superintendent's office was a grim one. Jim was a little proud as he told Madge the story.

"Sat there like a judge, honey," he told her. "Cool as you please. Thirty brownies apiece for the rest of the boys. But me, he really let me have it. 'You know better, Mister Diehl,' he says. 'Suppose you take a couple of weeks off and think it over. Study up on air. You cost the company a lot of money.' "

Madge winced. Two weeks off, two weeks without a paycheck. And those new curtains in the front room that was to be Johnny-Mac's room hadn't yet come from the dime store.

"Pretty severe, wasn't it?" she asked, trying to keep the concern out of her voice. "He knew why it happened, didn't he?"

He patted her hand. "Look, honey," he said. "He let me down easy, what'd the boys think? That he was playin' favorites 'cause we're family. He had to be tough. And, by the way, he won't be stayin' with us. It wouldn't look right—superintendent livin' with a crummy engineer. The boys would think—"

Madge got up, looked down at him.

"Crummy engineer?" she said, softly. "What's crummy about you, Jim Diehl? When you talk like that I could—I could—oh, all right, you big lug. Come on, let's wash dishes."

The night was long and sleepless for Madge. For she had seen the hurt in the big man's eyes. A hurt that was new. Brand new.

So Johnny-Mac came to the South End. Just another youngster, so the Division thought, serving his time out. So the Division thought, at first. But as the weeks went by a change in atmosphere became apparent. Nothing you could put your finger on, nothing earth-shaking, but the change was there. Leo Krausmeyer came to Jim one afternoon in the washroom, where trainmasters weren't supposed to be.

"They don't like the boy, Jim," he said in his slow, tired voice. "He looks past them when he talks. He puts up too many bulletins. He—tells me nothing. I think I haf enough. I am sixty-seven years old, Jim. I think I retire."

Jim had known all this, and he was worried. But the South End without Leo Krausmeyer would be unthinkable. So when he had washed up he climbed the steps to Johnny-Mac's office.

Johnny-Mac was alone, it was late, the lights were on, the superintendent's desk was piled high with work. Ignoring Johnny-Mac's gesture toward a chair, Jim stood before him and spoke his piece.

"Stop it, kid," he said abruptly. "This is a little Division. You've got a big Division bug in your head. It won't work. Knock off and come on down home with me. Let's talk."

Johnny-Mac leaned back in his chair, looked up at his brother.

"Listen, Jim," he said, very quietly. "I've been expecting this. All our lives you fought my fights for me. This is one I'm handling on my own. I'm running this show. My way. I've heard about the South End being a 'nursery for infant officers' ", his voice went suddenly hard. "Nobody's wet-nursing me. Not that big Dutchman of a trainmaster. Not you. Not anybody. And if that's all—I'm busy."

Jim Diehl looked down at the littered desk, at Johnny-Mac's hands—and Johnny-Mac clasped them quickly to hide the trembling.

"Kid," he said. "I took up for you when I thought you needed help. You didn't have what it took then." He leaned his fists on the desk, it creaked under his weight. "And you ain't got it now." He tapped his great chest. "If it ain't here, you ain't got it. So long."

The superintendent's face went white, his lips were stiff as he spoke.

"So I haven't got it?" he said harshly. "All right. Look."

He jerked a desk drawer open, snatched a sheaf of papers from it, flung the stapled sheets at the engineer. "Read these. And then see what happens to your damned South End."

FOR A MOMENT Jim Diehl stared at Johnny-Mac. He leafed through the papers the other had flung at him. For minutes he read, and when he looked back at the superintendent his face was blank in stunned surprise.

"This—this wipes out the South End," he said slowly. "You worked this out yourself?"

Johnny-Mac nodded grimly. "Every line. It's simple. Absorb the South End into the Alabama and the Piedmont Divisions. Use it as a cut-off between Elyton and Branchville. Run the crews through from Birmingham and Sheffield. The saving's enough to—"

Jim Diehl flung the papers on the littered desk. "How about Elyton, kid?" he asked. "How about th' men? They live here. Own their homes here. Raise their kids. What about that part of it?"

Johnny-Mac laughed, but there was no mirth in the sound.

"The men? Funny, but that never occurred to me. Well, that's simple, too. When we don't need a piece of machinery, we scrap it. No reason why we should hang onto men we don't need, is there?"

He put a hand on the neatly arranged brief that meant the end of everything for Elyton and the South End.

"It's all set up, Jim," he said. "A month or so, and we'll spring it. I've got it made, brother of mine. And this time you won't have to slug anybody for me."

Jim Diehl looked out of the window. Dusk was falling, the lights were coming on in the little houses ranged along the railroad, between the tracks and the river. There were lights in the little church—prayer meeting night.

"Maybe I was wrong, Johnny-Mac," the engineer said softly. "Maybe I should've let you take a few lickins. But—maybe it ain't too late to let you take a lickin' where it'll hurt the most. Maybe it ain't too late."

The door closed softly behind him, he walked down the worn stairs and into the street. There would be crewmen in the wash-room, maybe at Ma's place, the drug-store. And they would listen. Everybody listened to Jim Diehl—or else.

And the South End did listen. The order, "by the rules" was passed from crewman to crewman, from switch shanty

to yard office, from cab to caboose. And, at seven o'clock the next morning, "by the rules" it was; and there was hell to pay.

The yard switcher inched along with sedate dignity in building the local, strictly within the provisions of the rigid operating rules of the SG&A. The switch crews walked just as sedately from car to car, peering carefully at the foot-high numbers, comparing them meticulously with their switch lists. Gil Peterson, the yardmaster, went storming out of his office, returned stunned and bewildered, grabbed his telephone, dialed Johnny-Mac's boarding house.

"Better get down here, Mr. Diehl," he said. "Somethin' funny goin' on. Everybody's gone nuts."

Over at the roundhouse, Charley Hoehn was having his troubles. Jog-along Jones, the engineer on the North local, was going over the 802 with an inspector's hammer and his bifocals perched on his nose. The work report he was filling out would have done credit to a Federal Inspector with a mean disposition, and all day at his disposal. The foreman flew into Jog-along like a ferret into a flock of chickens; but the engineer simply signed his name to the inspection report, handed it to Charley with the terse observation that when the 802 was ready to go he'd be glad to take her out; otherwise no local today. The foreman stared at him open-mouthed, threw his battered hat on the ground, jumped on it, then went crunching through the frosted stubble to the superintendent's office, just as Johnny-Mac's convertible skidded to a stop.

"Whea' in blazes you been, cap?" howled Charley Hoehn. "And what in tarnation you been up to? Better get out'en that potato-bug of a cah and find out somethin', quick. Brother, you got trouble!"

AND JOHNNY-MAC did have trouble. Teh North local was five hours late getting out. The yard clerks developed sudden myopia when it came to recording car numbers in the camp books. The car men insisted upon making over-the-top inspection of every car in the little transit yard. The telegraphers developed wire trouble—once perfectly readable morse turned into gibberish. The long disregarded speed restrictions through towns "incorporated" for tax purposes along the South End, became iron-clad edicts. Jog-along Jones' fireman, entering into the spirit of things, hitched a bell-cord to the stack of the 802, led it at a funeral pace from the Elyton yard to the city limit board, followed by a delighted throng of grown-ups and still more delighted school kids.

By noon the wire services had picked the story up, and there was enough excitement to satisfy even the bored ESSO newscasters. The few trains the South End ran were hours late, freight was piling up at Elyton and Branchville, a flood of telegrams jammed the telegraph office, the single telephone line to Johnny-Mac's own office was cherry-red with the apoplectic inquiries from the high brass. Three of the SG&A top level personnel department experts were gingerly looking up plane schedules and eyeing the weather, Ma Gannon's place was a madhouse of off-duty crewmen and out-of-town feature writers. Elyton was having its day in the sun.

Johnny-Mac fought back, with the apoplectic Leo Krausmeyer, loyal as any Roman legionnaire, at his elbow. But it was like fighting a shower of feathers. Johnny-Mac was everywhere—in the roundhouse, in the yard office, in the yard itself. But he was helpless against the stolid, passive slow-down that had enveloped the South End. All day he fought, while the wheels of South End ground slowly to a stop. At sunset the end came. The South End just died.

Leo Krausmeyer followed Johnny-Mac into his office, looked pityingly at the young face, red with cold, lined with bitterness.

"I am sorry, Mr. Diehl," he said. "I haf tried. I haf failed. You haf my resignation—"

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Johnny-Mac shook his head. "No, Leo," he said. "I'm the one who slipped up. Funny—" he turned in his chair, looked out over Elyton, the lights in the little houses along the river. "I overlooked one thing. People. Go home, Leo. Get some sleep. I think it'll be over pretty soon."

The old trainmaster started to speak, thought better of it, walked wearily out of his office. For a long while Johnny-Mac sat there, staring out into the night, ignoring the steady peal of the telephone on his desk. Then he got up and went out into the big office, sat down at a typewriter. Ten minutes later he strode to the bulletin board at the yard office, tacked a sheet of paper to it, shouldered his way through the sudden crowd of crewmen that materialized out of nowhere. Ma Gannon's place was but a few steps away.

Jim Diehl was hunched in silence at the counter. The sudden hush that fell over the place was a thing to remember.

"Stand up, Jim," the superintendent said, very quietly. "Stand up."

Jim Diehl looked up at him. "Hello, kid," he said. "Coffee? You probably need it by now."

"I've got the right to try, Jim," Johnny-Mac said. "I know I haven't got a chance, but I've got the right to try. You owe me that much."

Jim sighed, nodded. "Guess you're right," he acknowledged. "Outside suit you?"

Together they walked toward the door, two men of one blood but ages apart. The crewmen watched them go—but before they reached the door Jimmy Shelton, the second trick caller, his face chalk-grey, burst into the room.

"South local—" he gasped. "Settin' out hot box in Crest Siding—train got away—ten cars casin' head gas—comin' this way. Conductor 'phoned in—says get everybody out—casin' head—"

FOR A MOMENT there was stunned silence. Then a sudden babel of voices, the crewmen jammed through the door. Ten cars of casing-head, the hellish brew that could remove the little cluster of homes that was Elyton from the face of the earth. A twenty-mile grade to gain momentum, heading toward a jammed classification yard; a crashing, ghastly collision, with thousands of gallons of gasoline needing but a single spark—

Jim's great hand closed over the panicked caller's shoulder.

"Engine!" he bawled. "Got an engine hot? What's here?"

"800—roundhouse lead—" the youngster yelled, tearing free. "Just set her out—dammit, let go! Gotta get home—tell mom—"

He was gone, fighting his way through the door. For a moment Jim Diehl stood where he was. Madge was in the little house by the river, waiting for him to come home. But here was Elyton—the little houses—a lot of little houses—

"Out of my way!" he shouted, wading into the struggling, cursing mass of men jammed in the doorway. His great arms worked like pistons as he clawed his way through them. Then he was free, out in the street, running. The 800 was standing on the lead, a feather of steam floating from her pop valve, her headlight generator singing its eerie song. Other men were running past him now, down the dirt street.

"Hey!" he bellowed. "Gotta have a fireman. Can't fire this goat an' run her, too! One o' you guys—"

But they weren't thinking about being heroes, or about Jim Diehl then. Their homes, their women, and the death rocketing out of the hills—

"I'll fire for you, Jim."

It was Johnny-Mac, panting from his run. Johnny-Mac, peeling off his jacket. "I'm not much with a scoop, but maybe I can keep her hot—" he grinned up at his brother. "As far as we're going. Let's go."

Jim's hand swept down on Johnny-Mac's shoulder in a quick gesture, then they were in the cab. No time to open a switch, Jim yanked at the throttle, the wheels of the 800 spun, sparks flew, the old engine lumbered through the closed

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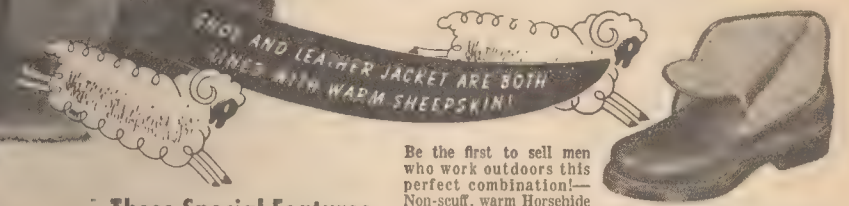


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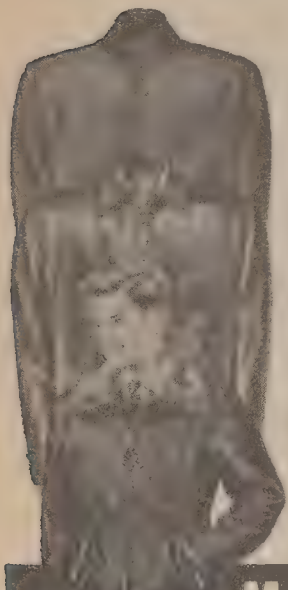

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switch, headed out onto the main line and toward her destiny.

Johnny-Mac grabbed the long-handled scoop, made an awkward pass at the fire-door, missed it, the shovel changed, coal flew everywhere. Jim Diehl laughed.

"Take it easy, kid," he shouted. "We'll head up the hill a couple o' miles, reverse this heap, let th' gas catch up to us. Then we'll see if this hunk o' scrap-iron's got guts enough to slow 'em down—"

Johnny-Mac spat on his hands, grinned in the cab light, the glare of the fire-door red on his face.

"You're a cock-eyed liar," he said. "You know and I know that we haven't got a chance to pull anything like that. Well, it's a nice night for it. Ride 'em, cowboy."

Jim Diehl looked ahead, the rails were shining in the glare of the headlight of the 800. Johnny-Mac was right. There was only one thing that would work. Meet the gasoline cars head-on, somewhere in the night, amid the curves and fills and cuts and tunnels of the dizzy grade. Better two men than a town, better Johnny-Mac and Jim Diehl than Elyton. He tightened his grip on the throttle, widened on her.

The 800 roared in fierce response as she launched into the steep grade. One mile—two—three—her headlight blazing across the gorges and gullies of the Ridge, she pounded toward her rendezvous with eternity. Already it was time. Time to shut off and turn back, let the runaway catch up. But Jim Diehl's hand was steady on the throttle, the 800 ripped and wallowed as she sped up the grade.

And then it happened. A half mile ahead, the hulk of the gasoline train rolled toward them with the silent uncanny speed of cars on the loose. Jim Diehl turned to his volunteer fireman, across the pitching, swaying cab.

"Join the birds, kid," he brawled. "Hit the dirt—"

And Johnny-Mac's voice was in his ear.

"Maybe you're ready for judgment," he yelled. "But not me. Come on!"

Johnny-Mac's arms were around him, jerking him off the seat box. Together they staggered to the deck, and with a final lunge the smaller man flung them both from the gangway of the 800. They landed in a bone-shaking huddle, rolled down a fifty-foot fill, bushes ripping and tearing at their clothing.

And the 800 went on to her destiny. Alone.

THEY STILL TALK about it around Elyton, remembering their silence as they watched the black sky above the Ridge, listened to the thundering roar of 800's exhaust, heard the defiant scream of her whistle; the stilled gasps as a sudden spurt of flame leapt high against the sky. The fire raged throughout the long night, while the derrick crew waited and drank coffee, knowing that they were helpless until the fire had had its way.

For three days Jim and Johnny-Mac lay in the Elyton hospital, not moving, scarcely breathing, while the doctors worked and wondered how two men could take so much and still live. Madge sat in the room and waited, serenely confident somehow, but with the tautness about her mouth that comes to all women who share the lives of men with steel rail in their hearts. And on the third day a man came, a tall, gaunt man, with an air of authority about him.

And it was on the third day that Johnny-Mac opened his eyes.

"About time you woke up," the President of the SG&A said. "What the hell's this letter I got from you? I'll read it."

And he read it. A letter of resignation, couched in the precise language that bespoke maybe a little too much book-learning. Johnny-Mac nodded. The President cleared his throat.

"Okay. Now I'll read you another. Signed by everybody on the South End. Everybody, that is, but one."

And he read it. It was a long letter, on company stationery. In some places the grammar faltered, the spelling wasn't according to Webster, but the thought was plain. As plain as the afternoon sun. The

South End, it said, was as sorry as hell it had acted thataway, and would the SG&A please forget it and not let Johnny-Mac quit like he put on the bulletin board he was going to. When the President had finished reading, Madge was crying and Johnny-Mac was trying not to. But Jim Diehl had managed to get one eye open. With an effort he turned toward Johnny-Mac, and their eyes met and locked in silence. Suddenly their non-committal looks dissolved into affectionate smiles. Jim burst into laughter.

"Gimmie a pencil, honey," he said to Madge. "And you, mister, let me have that letter. Can hardly move my hand but gotta sign it. Anybody crazy enough to fire for me ought to have 'nother chance, anyhow."

The president grinned, uncapped a five-dollar fountain pen, handed it over.

"All right," he said. "But you guys better learn something. We knew about this idea of yours, mister superintendent. It's good. It'd save a lot of money. But —we're not going to do it. We'll find some other way. This is a pretty nice little town and we're not going to spoil it. After all, even us ex-brakemen who wind up being railroad presidents have hearts. Hurry up and get out of those beds, you two. There's something else in life besides pleasure."

So Johnny-Mac stayed on. And when the time came for him to make his move, the South End threw a party for him that's still talked about from Elyton to Branchville and back. The stuff they gave him took half a box car to haul away. But the one present Johnny-Mac got, and the one that hit him hardest, was a simple sign-board, half way down the grade from Crest Siding, where the 800 went to glory along with ten cars of casing-head. A station sign-board, lettered simply on wood, in a wilderness where there isn't a living soul within miles. "Diehl Brothers," it says.

Nowhere else on the SG&A is there a station named for a living person. So how important can you get?

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# *On the Spot*

***Our Readers Talk It Over With the Editorial Crew***

"HAS the horn on your car ever stuck?" asks Luther Cummings, Jr. "If so, you can sympathize with the crew of Southern Pacific's No. 61830, whose whistle started wailing one Sunday and refused to stop. They were hauling freight from Ventura, Calif. to Los Angeles. SP brass collars, deciding not to break the Sabbath quiet of the big city, sent another engine to bring in the train. 'Big Toot' was riptracked and her boilers were allowed to cool to permit repairs."

UNLIKE the President of the United States, Great Britain's Queen Elizabeth II has two special trains in addition to a private car for any rail trip she may wish to make. These are the royal trains formerly provided by the LMS and LNER Railways, before nationalization. The LMS special is used for overnight and other long journeys; the LNER train is preferred for shorter trips. Each has accommodations for the royal family, the ladies-in-waiting, other retainers, and a special train staff.

GOURMET SPECIAL. For the first time in railroad history, as far as we know, a train was operated for the sole purpose of serving a meal. It consisted of five diners, a lounge car, and the famous private car *Gold Coast,* with its owners Lucius Beebe and "Chuck" Clegg aboard as guests of honor. An excursion for the East Bay Society of Gentleman Chefs was being carried out in style.

Leaving the Western Pacific's station in Oakland, Calif., at 11:30 a.m., they rolled to San Jose devoting their time to consuming such delicacies as jellied eel, smoked rattlesnake cutlets, lamb-fed bear steaks, and a concoction of ice cream, strawberries and imported liquors. By the time they returned at 4:30 p.m., two hundred stomachs had been gladdened.

* * *

DESPITE what William Wyer, Long Island Rail Road trustee, says, some of our readers think it possible for the LIRR to break even on its branch east of Patchogue.

"Between Patchogue and East Hampton there is much traffic," writes Felix E. Reifschneider, Box 774, Orlando, Fla. "The line can be made to pay if the railroad unions will agree to a two man crew on a railbus type of car, if stations are closed and fares collected on the car, and *if* local authorities sharply reduce the tax load on the railroad. A recent newspaper item says that the LIRR, although it runs only a single-track line through Brookhaven, pays more than one-third of the total taxes collected by the township!

* * *

WE'VE heard of station cats, train-riding cats and roundhouse cats, but this one has 'em all beat. Jack Emerick, 200 South Terace, Boonton, N.J., cites the case of a feline visitor to the New York Society of Model Engineers in the Lackawanna terminal at Hoboken, N.J., who gave birth to a litter of kittens in the tender of a 30-foot model of a Lackawanna Pacific-type engine, No. 1135.


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FIDDLETOWN & COPPEROPOLIS RY.

*No. 61* Romance Rides the F & C as Pres. Yancey's Daughter Bertha Elopes with Low-Water Hogan

*by Carl Fallberg*

CORRECTIONS in our May issue: "I had 10 years of Santa Fe service, not 40 years as stated on page 131," writes Paul W. Tilley, retired yard clerk, 10109 Stanford Avenue, Los Angeles 2, Calif., "but I wish it had been 40."

Caption above the photo on page 62 has a typographical error, reports H. Reid, 8549 Wayland Avenue, Norfolk, Va. The Virginian engine's number should be in the 210-215 series.

"No. 6269, pictured on page 69, was never on the Dominion Atlantic roster," corrects Harold A. Jenkins, 18 King Street, Windsor, N. S., Canada. "And you omitted mention of an oldtimer, No. 560 (D-6-b) that's still going strong. Of the engines you list, Nos. 1041, 1089 and 2552 have recently been retired."

Exaggerations caught by the sharp eyes of "Woody," Los Angeles, and Paul Simpson, Clarence, Iowa: "9 percent ruling grade" (page 37) and "16,000 hp. diesel locomotives" (page 133).

* * *

FREE rides for any and all passengers is a popular feature of the Fulton Railway that operates between Fulton and Amory, Miss., 24 miles. Not only that, but the train will stop anywhere along the route to pick up passengers, at no charge to the persons wishing to ride. This line is owned and operated by the Carlisle family.

* * *

WANTED by A. H. Cardin, 2539 41st Street North, Birmingham, Ala., a copy of a group picture made on one of the O&A section foreman's inspection tours of what is now the Alabama Mineral subdivision of the Louisville & Nashville's Birmingham Divison, between 1909 and 1918.

He writes, "My father, J. W. Cardin, was employed as section foreman during that time and would very likely be in such a group picture. He died in 1920. We have no picture of him. For that reason, I would appreciate a copy of one of the photos described."

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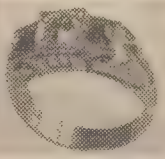

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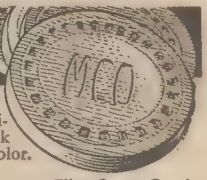

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MYSTERY veils the battered, rusty, steel and concrete safe, weighing about 1500 pounds, that was dug up unexpectedly a few weeks ago by a bulldozer on Texas & Pacific land adjoining the Abilene, Tex. station. It is believed train robbers buried the safe many years ago.

* * *

HEADIN' for the last roundup, a 10-mile railway that serviced local industries in and around Edmonton, Alta., Canada, since the turn of the century is expected to fold up before the autumn leaves fall. This line was hopefully named the Edmonton, Yukon & Pacific but it reached neither the Yukon nor the world's biggest ocean. After its tracks are ripped up, part of the old right-of-way will be used for new industrial sites.

* * *

CLASS ON WHEELS. Thirty students of the Newton, Mass., High School are still talking about the 5000-mile railroad tour that took them as far west as Idaho, reports Walter Thayer, Box 1588, Chelan, Wash. Besides visiting points of interest, the students heard classroom lectures on board the train.

A HALF-MILE railroad, the El Paso Southern, has just received a new 30-year franchise to run in El Paso, Tex., between the Santa Fe's freight depot and the international boundary midway across the Rio Grande. For this privilege the company pays the city $20 flat plus $20 per year. The EPS owns a railroad bridge spanning the river and is operated independently as a switch line in connection with the Mexico Northwestern.

* * *

QUERY. D. S. Richter, 1659 Kains Avenue, San Bruno, Calif., recently saw in San Francisco three New York Central boxcars, all brand new, Nos. 179438, 179439 and 179440, coupled together in numerical order in the same month in which they were made. He asks: "Is this a record for consecutively numbered cars to travel from their home road in so short a time?"

* * *

102 YEARS was the age of Samuel E. Mulholland, a retired Pennsy engineer, when he died recently in Erie, Pa. His life span covered the major part of steam railroad history.

**EL PASO & SOUTHWESTERN'S American type Engine No. 1 adds sculptural beauty to SP's office building grounds in El Paso, Texas**

*C. T. Steeb, El Paso, Texas*

*R. V. Nixon, Spokane, Wash.*

*Joseph Hardy, Alliance, Nebr.*

**WANDERLUST. NP's No. 684 (top) made display rounds of several cities in northwest, including Spokane, Seattle and Bellingham. Outshopped by Baldwin in 1879, "J. B. Haggin" (above) has found home in South Dakota's deadwood Museum**

ENGINES ON DISPLAY. Last December we published a partial list of retired steam locomotives on permanent display in the United States and Canada, compiled by Stanley T. Borden, 754 Stanyan Street, San Francisco, Calif. Other readers have since sent in a few corrections and many additions to that list. Here is the line-up as it now stands:

ALABAMA. Chapman: No. 14, *W. T. Smith Luber* (4-4-0) partly stripped.

ARIZONA. Clifton: Coronado RR *Copper Head* (0-4-0T) narrow gage.

Phoenix: Two narrow-gage mine engines in State Museum.

CALIFORNIA. Arcadia: Eureka Nevada No. 7 (2-6-2) 3-foot gage, Pony Express Museum.

Angels Camp: Unidentified 2-2-0T.

Buena Park: Borax Mine Special No. 3, *Old Betsy*, saddle-tanker; Rio Grande Southern No. 41 (2-8-0), and West End Chemical RR. (0-4-0T), all narrow gage, all at Knott's Berry Farm.

Camino: Mich.-Calif Lumber Co. Nos. 1 (0-4-0T) and 2 (Shay) and unnumbered 0-4-0T, all narrow gage.

Coultersville: Merced Gold Mining Co. No. 1 (0-4-0T) narrow gage.


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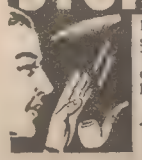

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Eureka: Elk River Lumber Co. No. 1, *Falk* (0-4-0T).
Hollywood: Virginia & Truckee Nos. 18, *Dayton;* 11, *Reno,* and 22, *Inyo* (all 4-4-0), preserved by movie industry.
Jamestown: Sierria RR. Nos. 3 (4-6-0) and 18 (2-8-0), stored and used only for film productions and railfan trips.
Lake Tahoe: Lake Tahoe RR. No. 2, *Glenbrook* (2-6-0).
Los Angeles: SP No. 3025 (4-4-2) at Griffith Park. (She pulled a President Taft Special.)
Oakland: Central Pacific No. 223 (2-6-2T); Nevada

MICHIGAN. Dearborn: Henry Ford collection of steam locomotives in Greenfield Village Museum.
Traverse City: Logging engine (2-4-0) in Clinch Park.
MINNESOTA. St. Paul: Great Northern No. 1, *William Crooks* (4-4-0).
Twin Harbors: Duluth & Iron Range No. 3 (2-6-0).
MISSOURI. Kansas City: Frisco No. 1532 (4-8-2), in Swope Park.
St. Louis County: St Louis, Iron Mt. & Southern No. 635, later MP No. 2707 (4-6-0); C&NW Nos. 1015 (4-4-2) and 1040 (4-4-0); Alton & Southern No. 12 (0-8-0); Katy No. 200 (4-4-0)· Boston & Albany No.

*C. T. Steeb, El Paso, Texas*

**DONKEYS IN A ZOO. Old mining engines placidly await visitors at Phoenix Museum, Arizona. No. 1 (left) saw service at Bunker Hill mine, Tombstone, Ariz., while No. 2 (right) worked for Coronado mine near Globe**

Central Nos. 5 (4-4-0) and 6 (2-6-0), both 3-foot gage, stored at Gilmore Steel Co.: V&T No. 13. *J. W. Bowker,* stored in Western Pacific roundhouse.
Palo Alto: CP No. 1, *Governor Stanford* (4-4-0) in University of Stanford Museum.
Portola: V&T No. 12, *Genoe* (4-4-0) and WP No. 94 (4-6-0) stored in WP roundhouse.
Sacramento: SP No. 1. *C. P. Huntington* (4-2-2T).
San Gabriel: Nevada Central No. 2 (2-6-0) 3-foot gage, on Ward Kimball's Grizzly Flats RR.
COLORADO. Alamosa: D&RGW Nos. 169 (4-6-0) and 346, both at Narrow Gage Motel.
Boulder: Rio Grande Southern No. 74 (previously DB&W No. 30) in Central Park.
Central City: Colorado & Southern No. 71, 3-foot gage.
Colorado Springs: D&RGW No. 168 (4-6-0) 3-foot gage; and, atop Cheyenne Mt. nearby, Manitou & Pike's Peak No. 1.
Durango: D&RGW No. 315 (2-8-0) 3-foot gage.
Idaho Springs: C&S No. 60 (2-8-0) 3-foot gage.
Montrose: D&RGW No. 276 (2-8-0) 3-foot gage.
CONNECTICUT. Danbury: Boston & Providence *Daniel Nason* (4-4-0) housed at Fair Grounds, exhibited at Fair each October
GEORGIA: Atlanta:. NC&StL *Texas* (4-4-0) in Cyclorama Bldg.
ILLINOIS. Chicago: C&NW No. No. 1, *Pioneer* (4-2-0); Illinois Central No. 201 (2-4-4T) in Science Museum.
MARYLAND. Baltimore: B&O Nos. 26, *William Mason* (4-4-0); 117 *Thatcher Perkins* (4-6-0); 247 *Ross Winans* (Camelback) and 600, *J. C. Davis* (2-6-0).
MASSACHUSETTS. Billerica· B&M No. 494 (4-4-0) restored for N. Y. World's Fair in 1939, now stored in B&M shops.

39, *Marmora* (4-4-0) one of the "Eddy Clocks"; B&O No. 175 (4-6-0), Camelback; Phila. & Reading, no number, *Black Diamond* (2-2-2T) inspection engine; Terminal RR. Assoc. of St. Louis No. 146 (0-6-0); and Union Electric Co. steam engine No. 1 (0-4-0T) all in Museum of Transport.
NEVADA. Carson City. Lake Tahoe Narrow Gage No. 2 (2-6-0).
Las Vegas: Eureka & Palisades No. 12; SBT&T geared mining locomotive; and Ruby Hill RR No. 1 (0-4-0T) all narrow gage, at Frontier Village.
NEW HAMPSHIRE. Marshfield: Mt. Washington Cog Ry. No. 1, *Peppersass* (0-2-2T) exhibited each summer in station at foot of Mt. Wash.
NEW YORK. Syosset, L.I.; Unidentified 2-4-0 narrow gage.
West Albany: New York Central speed king No. 999 and pioneer *DeWitt Clinton,* both in NYC shops.
OREGON. Near Chiloquin: Shasta Pine & Mfg. Co. No. 1 (0-4-0T) in Collier State Park Logging Museum on Highway 97, Scoggins Valley: Stimson Company's No. 1.
Portland: Oregon Portage engine *Oregon Pony* (0-4-0T).
PENNSYLVANIA. Baldwin No 50.000 (4-12-2) in Franklin Institute.
SOUTH DAKOTA. Deadwood: Homestake Mining Co. engine *J.B. Haggin* (0-4-0T) 22-inch gage in Municipal Museum.
TENNESSEE. Chattanooga NC&StL *General,* seized by Union saboteurs in Civil War raid. now in Union Station.
Memphis: Frisco No. 1350 (2-8-0).
TEXAS. Brownsville: No. 1, diamond-stacked (2-4-0) narrow gage.
El Paso: El Paso & SW No. 1 (4-4-0).

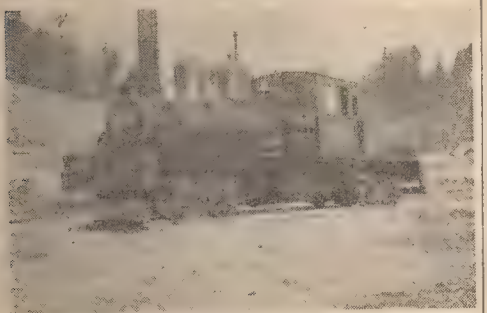
## On the Spot

*Roy J. Whittington, Calif.*

**Oahu Land & Railroad's narrow gage engine in Honolulu yard**

Dallas: T&P No. 638 (2-10-4) at Fair Grounds.
Fort Worth: T&P No. 610 (2-10-4)
UTAH. Salt Lake City D&RGW No. 223 (2-8-0) 3-foot gage.
WASHINGTON. Seattle. Great Northern No. 1246 (2-8-0), in Upper Woodland Park
WISCONSIN. Cudahy: Chicago Elevated steam Forney.
Rhinelander: Thunder Lake Lumber Co. No. 7 (2-8-0) 3-foot gage. (Rumor says she's been scrapped. Does any reader know?)
CANADA. Nanaimo, B.C.. Western Collieries engine *Wellington* (0-6-0T), 3-foot gage, in Piper Park.
Prince George, B.C.: Canadian National No. 1 (0-4-0).
Stellarton, N.S.: mine locomotive *Samson* and *Albion* (both 0-6-0).
Vancouver, B.C.: Canadian Pacific No. 374 (4-4-0) at Kitselano Beach, CPR *Curly* at Exhibition Park.
Winnipeg, Man.. CPR No. 1 *Countess of Dufferin* (4-4-0) in front of CPR station

Besides the locomotives in the Museum of Transport in St. Louis County, there



*L. Ferguson, Portland, Ore.*

**FRESHLY PAINTED and polished, Stimson Co.'s No. 1 (above) receives loving care at Scoggins Vy., Ore. "The Katy Flyer" (below) now rests in Museum of Transport**

*James L. Ozment*

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are 13 old retired cars, reports James L. Ozment, 3619 A., Marceline Terrace, St. Louis 16, Mo.

Henry P. Stearns, Taft School, Watertown, Conn., adds to our list Lackawanna No. 952 (4-4-0, Camelback) owned by the Railway & Locomotive Historical Society, and the Northern Pacific's first locomotive *Minnetonka* (0-4-0T) but he does not know where either of these are kept.

Information on the engine that used to stand on Iowa State College campus at Ames, but was scrapped in World War II, is wanted by E. J. Haley, president of the Rocky Mountain Railroad Club, 4116 Decatur Street, Denver, Colo., and others.

"That locomotive had 'D&SP', lettered on her tender wheels," writes Ernest Sevde, 110 West State Street, Toledo, Iowa, citing M. C. Poor's book, *Denver South Park & Pacific*, "and on her front wheel truck 'Denver Wheel G.W. Co., Denver, Colorado, January 14, 1896, UPD&G,' and on her front right cylinder casting 'DSP.' Henry M. Black of the college said, 'It is unfortunate this locomotive was scrapped. The value of the scrap-iron was not as great as its historical one.'

"The unidentified engine was donated to the college in 1934 by Mrs. Jesse M. Thayer, then living at Charton, Iowa, daughter of a railroad contractor. Mrs. Thayer wrote that the engine originally belonged to the Rio Grande and that her father bought it second-hand for construction work, using her on the Burlington in 1902 near Red Oak, Iowa. But Mr. Poor denies she ever saw D & RG service.

"I think she was a Mason bogie (2-6-6T) from the DSP&P. In 1916 the college replaced much of her sheet metal and cab. Her bell was rung after many a football victory until finally sealed with cement."

* * *

RUNAROUND. A supposed brakeman pulled a fast one on The Law not long ago at West Memphis, Ark., reports the *Southwestern Railway Journal.* A Frisco freight train blocked a railroad crossing for almost an hour while the crew was making setouts and pickups. The car of Sheriff Cecil V. Goodwin was among those stopped. Goodwin boarded the caboose and demanded to see the conductor. A man whom Goodwin thought was a brakie replied that the conductor, "J. R. Johnson," was at the front of the long train.

MASON BOGIE, of uncertain origin and scrapped over decade ago, is lamented as last of its type by photographer Ernest Sevde. Frame construction was rigid, with tender truck serving as integral part of unit

### *On the Spot*

The sheriff couldn't find "Conductor Johnson," but other crew men assured him that "Johnson" would return to answer a warrant. The law prohibits blocking a grade crossing for more than ten minutes, with fines ranging from $5 to $25. Not until the Frisco train had pulled out did the irate sheriff learn that the "brakeman" he'd been talking to in the caboose was actually the conductor, and the name was *not* Johnson.

Said Goodwin: "We'll get him one of these days when he makes another run."

* * *

YOU pronounce it! A pleasant little Welsh village on the Chester-to-Holyhead line of the British Railways is known as Llanfairpwllgwyngyllgogerychwyrndrobwllllandysiliokogogoch. This jawbreaker appears in a sign on the station platform. It means, in English, "St. Mary's by the White Hazel Pool, etc." Timetables use only the first two syllables, Llanfair. It is said that most of the remainder was invented years ago to appease the tourist's demand for local color.

* * *

LAST STOP is the Reader's Choice Coupon (page 129) which guides your editorial crew in selecting material for future issues of *Railroad Magazine*. Some readers use the coupon; others prefer to send home-made coupons, postcards or letters. Regardless of how votes are given, all count the same. Results of balloting on the July issue show as follows:

1. Michigan's Lumber Pikes, *Olds*
2. Gateway to the Pacific, *Sims and Steinheimer*
3. Carbarn Comment, *Sanchagrin*
4. On the Spot
5. Car House Kids, *Heseltine*
6. The Little Pike, *White*

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*Western Pacific*

**PEERING through 1903-style moustaches are Western Pacific's directors and officers, celebrating WP's 50th anniversary in Oakland last March. Behind them (without moustaches) pose The California Zephyr and Old 94**

# Railroad Hobby Club

ITEMS sent to the *Switch List* and *Model Trading Post* are published free, in good faith, but without guarantee. Write plainly and keep 'em short. Print name and complete address.

Because of time needed to edit, print and distribute this magazine, all material should reach the Editor twelve weeks before publication date. Redball handling is given to items we get the first week of each month, if accompanied by latest Reader's Choice Coupon (clipped from page 129 or home-made).

Use these abbreviations: *photo*, photograph; *cond.*, condition; *ea.*, each; *elec.*, electric; *env.*, envelope; *eqmt.*, equipment; *esp.*, especially; *info.*, information; *n.g.*, narrow-gage; *negs.*, negatives; *p.c.*, postcard; *pref.*, preferably; *tr.*, train.

Do not use the term *pix* interchangeably for photos and drawings. Specify *photo* or *drawing*.

The term *tts.*, refers to public timetables, unless preceded by *emp.*, when it means employe's (operating) timetables.

(R) indicates desire to buy, swap or sell back issues of *Railroad Magazine* or its predecessors. *Railroad Man's Magazine* or *Railroad Stories*. (Specify condition of each copy.)

(*) indicates juicefan appeal.

## SWITCH LIST

CARL J. BACHMANN, 4030 N. Plainfield Ave., Chicago 34, Ill., has recent NYC emp. tts. for Divs. west of Buffalo, 10¢ ea. Wants to buy 10 or 12 in. 78 rpm disc recordings steam whistles on SP *Daylight* locos,

## Railroad Hobby Club

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ALLEN R. BAIRD, 259 No. 10th St., Colton, Calif., will sell loco rosters, too many to list.

R. E. BALLARD, 776 N. Fairview Ave., St. Paul, 4W, Minn., has old ry. mail service schedules from 6, 10, 13 Divs., some in early '30s; will send for 25¢ ea. to cover postage, packing; state old or recent pref.

RAY W. BUHRMASTER, 1436 Gilbert Ave., Downers Grove, Ill., wants size 116, 616 loco negs. rds. RI, CB&Q, C&S, FW&D, other west., midwest; has good quality negs. to trade; will sell CB&Q, etc. p. c. negs.; state wants.

(R) CLARENCE T. CARLSON, 2905½ E. Franklin Ave., Minneapolis 6, Minn. will sell *Railroad Magazines* Apr. '38; Dec. '41; Apr. '42; Mar. to May, Sept., Nov., Dec. '43; Mar., May. June, Nov. '44; Jan., Feb. '45; Mar. '46, no covers; also Aug. '47; 35¢ ea. p.p. exc. Mar. '46, 25¢.

R. H. CARLSON, Box 56, Combes, Tex., will sell 5000 diff. size 616 photos 5¢ ea.; MoP, T&P, MKT, SLSF, SSW, RI, SP, T&NO, short lines, logging rds., industrial pikes; also some spare size 616 rare negs. MoP locos to trade for other rare negs. MoP, T&P. No list; state wants. Also has few T&NO negs.

FRED CLARK, 599 Delmas Ave. San Jose, 25, Calif., wants many back issues *The Western Railroader, NRHS Bulletin.*

(*) THOMAS COLLINS, Philadelphia 19, Pa., wants to trade or sell '46 to '52 truck literature for Pa., Ohio trolley, El, subway; bus photos literature. Write first, state makes wanted; answers all mail.

WM. H. COO, Box 202, Copper Cliff Ont., Canada, will buy size 116 photos DUR. Schuylkill Valley Ry., Wilkes-Barre Ry., HEPC of Ontario lines, CW&LE, TSR; has size 116 photos Sud -Copper Cliff Suburban, Int. Nickel, TTC, GRR, LE&N, NStC&T, CSR, IRC to trade or sell; also CP, CN size 620 negs. for sale.

DAVID R. COOLEY, 311 John St., Bound Brook, N. J., wants photos Rdg. 2100 class T1 locos, emp. tts. Also photos any CNJ steam engs., state price.

H. T. CRITTENDEN, Box 1457, Norfolk 1, Va., wants info. on former 60 cm gage lines in Japan and present 15 in. gage lines in England.

(R) C. N. DAVIS, Hamburg, Mich., will sell *Railroad Magazines* Apr. to Aug. '37, 20¢ ea.; CNR, GTW roster; *Trains, Off. Guides;* RR p. c's.; history L&N Ry.; abstracts, etc.; accident reprs.; all good cond. Send for list prices; state rd. pref.

M. Sgt. GEOFFREY S. DAWSON, RA6287373, Hq. USA RAL, G4, A.P.O. 949, c/o Postmaster, Seattle, Wash., will trade 5 latest Lucius Beebe's RR picture books, 2 of S. Kipp Farrington's, in good cond., for foreign military relics, all kinds, incl. all guns.

(R) J. A. DOUGLAS, 26 Springbank Ave., Toronto 13, Ont. Canada, will sell *Railroad Magazines*, Aug. '41 to date, plus 8 older copies, all new cond., $20. plus postage. Also *Trains* Jan. '50 to date, exc. Mar. '51, $10. p.p.; also CNR marker light; make offer.

GARY DUCKERT, 1214 W. Meinecke Ave., Milwaukee 6, Wis., wants pref. negs. or photos TMER&L cars Menommee, Waubesa, Momona, Milw. Northern cars 1, 80 to 83, 31; *Off. Guide* Apr. '50, Sept. '52; $1. p.p.

DENNIS DUPIER, 134 McKinley Ave., Dumont, N.J., wants switch, marker lamps, brakemen's lanterns, emp. tts,. photos, negs. State cond. Will pay esp. well for NYC, main, West Shore Div. photos.

(*) THOMAS DWORMAN, 951 Whitmore, Detroit 3, Mich., wants Detroit street car photos, esp. '48 and prior; will pay cash or trade.

(R) JIM EHERNBERGER, Box 433, Cheyenne, Wyo., will buy '48 *Railroad Magazines;* any size negs., rare photos, any material Colo. n. g. rds.

(*) WM. EHLY, County Home, Royersford, Pa., wants trolley photos, all kinds; state price.

F. B. FAIRBANKS, 627 Nott St., Schenectady 8, N. Y., desires info. on and will buy or trade photos old or unusual signals, American or foreign; pref. 35 mm transparencies, but any acceptable.

JAMES FRY, 1652 Carlyon Rd., E. Cleveland 12, O., will trade June '12 *Off. Guide* for toy tr. catalogs prior '25.

(*) TOM GRAY, MU3. 9889157, Band #15, USNTC, Great Lakes, Ill., has negs., size 116, 616 elec. lines in Calif., Chicago area, East Coast to trade for same size negs, steam rds. in U. S., Canada and elec. lines in Midwest, East, Southern states.

(R) LEWIS HARRISON, Walhalla, S. C., will pay $1. for *Railroad Magazine* May '41, all Blue Ridge Ry.

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material, good cond.; $1.25 for *Trains* July '41, all Blue Ridge Ry. material, good cond.

(R) FRANK J. HERMAN, 3121 Lancer Pl., Hyattsville, Md., will sell *Railroad Magazines* Jan. '49 to June '50, $3.50; *Trains*, Vols. 1 to 12, $40.; *Model RR*, Vols. 4 to 19, $50.; *RR Model Craftsman*, Sept. '50 to Dec. '52, $6.; *HO Monthly* July '49 to Feb. '50, Jan., Feb. '53, $3.; entire lot $100.; all mags, uncut, excell. cond., p.p. Other railroadiana, pamphlets, photos, roster, etc. $5. or free if all mags. are purchased.

ALFRED J. HOLCK, 4628 Duplessia St., New Orleans 22, La., has large list size 116 p. c. photos for sale or trade, over 700 CB&Q plus many other rds. Wants to buy good size 116 or p. c. negs. steam only.

JAMES JEFFERY, 418 N. Jefferson St., Knightstown, Ind., will sell English Ry. mags., clean, uncut cond. '47 to '51, 20c ea. or 20 or more copies 15c ea. Orig. price, 50c; monthly mags.

(*) BILL JERNSTROM, 2637 Larchway Dr., South Bend 15, Ind., will sell set of approx. 33 copy negs., size 2¼ x 3¼ covering all types LS elec. ry. eqpmt., r/w, in yds., stas., etc.; entire set $20., less than actual copy cost. Also has elec. lines maps for sale.

ERIC JOHNSON, 1315 Prospect Dr., Linden, N.J., wants CNJ eng. photos; send list with eng. nos., class, size, price.

(R) RUDOLPH F. KNEER, 916 Griswold St., Peoria, Ill., will accept best offer for *Railroad Magazines* '33 to '36.

NORMAN E. KOHL, 51 Locust Ave., Glen Head, N. Y., will buy switch keys, switch locks, any RR.

(*) ROBT. LEVIN, 555 Ocean Ave., Brooklyn, N. Y., has pictures present NYC eqpmt. used on subway; will swap for photos of elec. or transit lines.

WALTER H. LEWIS, Jr., 341 Claire Pl., Menlo Park, Calif., wants steam, gas-elec. car photos Erie RR esp. N. J. commuting service.

DICK McLEOD, 3915 Fern Ct., Madison Wis., will trade size 116, 616 negs. Wants good negs., any rd., esp. short lines, industrials.

ALLAN J. MacLAREN, John Clark Lane, Hudson, O., wants photos Colo. n. g., Colo. Midland, Denver & Salt Lake over Rollins Pass. Write first, state location, date, etc., photos.

E. M. NEFF, 1515 Maryland Ave., Springfield, O., is disposing of collec. emp. tts., *Off. Guides*, size 616 steam, elec. negs.; fans in his vicinity, for further info., call at his house; no lists.

(*) R. E. NEUMAN, 740 Catherine St., Muskegon, Mich., wants to buy tr. markers, switch lamps, info. on abdn. street car, interurban line eqpmt. Has CTW emp. tts. to exch. for photos of above lines.

(R) R. J. PATZER, 504 McKinley, Batavia, Ill., wants Mar. to Aug. '49, other prior issues *Railroad Magazine*.

(R) MAYER PEARLMAN, 141-11 78th Rd., Flushing 67, N. Y., will sell old *Railroad Magazines;* also will sell or trade photos. Send stamp for list, old M&E tkts. State needs.

FRANK PENCE, R. F. D. 1, Box 191, Amelia, O., wishes to buy photos IR&T, CG&P elec. RRs of Cincinnati, O.

TEX PRUSIA, 216 Jennings Ave., Wood River, Ill., will trade size 116, p. c. negs. Also trade or buy 35 mm Kodachromes, steam locos, trs.

(*) HOMER S. REISINGER, 16105 Munn Rd., Cleveland 11, O., wants photos Interurban cars that used to run into Cleveland, NOPL, CPE, NOT, Southwestern.

(*) HARRY REYNOLDS, 1025 Morgan Ave., Drexel Hill, Pa., wishes to trade, sell and buy good quality size 116, 122 negs. elec. rys. U. S., Canada. Has a few size 120 negs. elec. lines around Phila.; answers all mail.

(R) TOM ROSTKOSKI, 2033 Lake Ave., Elyria, O., will buy Nov., Dec. '48 *Railroad Magazines*, good cond.

I. W. SAUNDERS, 6625 Tennis St., Pittsburgh 6, Pa. publishes and edits *The Loco Newsletter*, a mimeographed 2 pg. single sheet monthly, devoted solely to steam locos, rosters, history, builder's records, tracing, etc. Sample copy for stamp; 50c per yr.

CHARLES SNELLING, 3 St. Edmunds Dr., Toronto 12, Ont. Canada, will buy, sell, trade photos, negs. and 35 mm color slides, 8 mm movies, folders, PCC, Peterwitt street cars, trailers.

J. I. SOLL, 888 So. Vallejo, Denver 19, Colo., will buy M. C. Poor's *Denver, South Park & Pac.;* state price.

E. F. STODDARD, 35 Ringgold St., Springfield 7, Mass., has RR lanterns, globes, parts; will trade for military medals, Indian relics, mineral specimens.

(R) WM. J. TEZON, 1217 Rural, Boonville, Mo., will sell *Railroad Magazines*, good cond., exc. a few, 25c ea. or the highest bid for lot, express C.O.D.; Aug., Nov. '38; May, Sept., Oct., Dec. '37; Feb., Mar., Aug., Nov. '38; Jan., Feb., Dec. '39; '40 exc. June; all '41 to '46; Jan. to Apr. '47.

(R) P. W. TILLEY, 10109 So. Stanford Ave., Los Angeles 2, Calif., wants Jan., Mar., Apr., Aug. to Dec. '38; Apr., Aug. to Dec. '39; Mar., Nov. '40; Feb. '41 *Railroad Magazine;* has all '52 *Ry. Age* to exch.

(R) CHARLES E. TROXEL, 319 North 5th St., Lebanon, Pa., will buy *Railroad Magazine* '52 compl., perf. cond.; quote price. Will buy good, clear photos, loco roster, other info., material Reading locos; photos Cornwall, short lines, locos, steam or diesel; pref. side or ¾ sideviews; send list, Nos., prices.

(R) Rt. Rev. ALEXANDER TURNER, SSB, 52 Kingsbridge Rd. West, Mt. Vernon, N. Y., will sell *Railroad Magazines* '44 to date, fair to good cond., also 16 issues Apr. '42 to Dec. '43, poor cond.; *Trains*, Sept. '45. to date exc. Apr. '51, lot only, $60. plus frt.; *Poor's Manual of RRs* 1890; *Moody's* '39; *Railroad Avenue; Budd Analysis of Changes in Trans.* '40, 2 vols. (spiral, paper covers); state offers.

W. RALPH TUXILL, 50 E. Nicolet St., Banning, Calif., has *The Fastest RR Run Ever Made*, about a speedie run made on the Lake Shore & Mich. Ry. 1895; Rand McNally & Co. shippers Guide for N. Y. State listing cities, towns, RRs, etc.; will trade for *Four Track Series* or *Four Track News*, published 1898 to 1902.

(*) CHARLES VANEK, Box 165, Frankenmuth, Mich., will buy photos elec. interurbans, street cars Mich., Ohio, Ind., Ill.; write first.

(*) LESTER VAN PATTEN, 558 W. Ferry St., Buffalo 22, N. Y., will pay asking price for any size photos Buffalo & Lake Erie Trac. Co., Int. Ry. Co., Buffalo Southern Ry., Buffalo & Williamsville Ry., Lackawanna Trac. Co., Hamburg Ry. Co., Rochester. Lockport & Buffalo Ry.

JACK M. WALDECK, 1004 Madison Ave., Huntington 4, W. Va., wants German, Austrian, English, Belgium, French RR photos, tts., tkts., maps, mags.

SAM WALL, 1420 Hickory St., Texarkana, Ark., will buy any size steam negs., any rd., esp. T&P, MP, KCS, SSW, CRI&P; also lithographs, drawings, photos, any steamer; answers all mail.

(R) L. D. WEBSTER, 124 Tompkins, Cortland, N. Y., will sell *Railroad Magazines* '42 to '52 for best offer or swap for boys books or dime novels, prior '15; also some LV emp. tts. 1900 to 1920 to exch. for other tts., around same dates.

(*) OTTO A. WEISS, 3252 34th St., Long Island City 6, N. Y., will buy pictures, map New York Housatonic & Northern RR 1868 to 1885 from Brookfield, Conn. to New York City; N. Y. Westchester & Boston RR, Danbury & Harlem Trac., 1901, now known as Golden Bridge trolley.

E. A. WILHELM, 108 Jerome St., Texarkana, Tex., retired railroader, collects emp. tts. Class 1 rds., desires to corres. with railroaders in any state, U. S.

(*) EDWARD E. WOOD, Jr., 68 Needham St., Dedham, Mass., will sell or trade for RR history items Compl. Proceedings, Am. Elec. Ry. Assoc., and affiliates (exc. Claims Assoc.) Conventjon for '16; includes illus. elec. ry. history by F, J. Sprague, half-tones of signals in Newark subway, sample tts., other info.; cloth-bound, slightly worn, 5 books, $4. Write first.

## MODEL TRADING POST

(R) G. A. DORSCHEL, 6327 Garfield Ave., Hammond, Ind., will sell *Railroad Magazines* '37 to date or or will trade for HO eqpmt. Has H. O. Bowser Mtn. loco, tender, to best offer over $20, or will trade for Midlin Cork base trk., switches.

BUNTING C. FARNER, 116 E. Broad St., Burlington, N. J., has *AF* 3/16 in. scale rolling stock, locos, pass., frt. cars in good cond. Will sell or trade for *AF* 352 AC Union Pac. loco; list for stamp.

FRANK J. HERMANN 3121 Lancer Pl., Hyattsville, Md., has HO trk., switches 2 locos, 11 frt. cars, power supply, paint, meters, etc.; cost over $200 new, will sell for $125, or best offer; will incl. misc. parts, supplies, write for list.

DWAYNE HOWARD, 1590 Lee, New Braunfels, Tex., will sell below cost HO model RR locos, diesels, frt., pass. cars plus misc. parts. etc. encl. stamp for list.

(*) JOHN LES CANEC, 173 E. Burlington St., Riverside, Ill., will take 8 mm movies trs. in exch. for 8 mm movies streetcars or interurbans; also will buy 0 gage *AF* Burlington type tov tr or old type UP stream-

### Reader's Choice Coupon

**Stories, features and departments I liked best in the September issue are:**

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2. .....
3. .....
4. .....
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6. .....

**Best photo on page**

Name .....

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line pass. *Marx* tr.; motor need not be in working cond.; wind-up or elec.

ROSS E. MORRIS, 19 E Camino Real, Vallejo, Calif., wants 00 *Midtn* switches and trk.

AVERY A. NORLIN, McCracken, Kans., will trade *Mantua* General kit, untouched exec. frame assem., for S gage *Rex* dockside untouched kit. Also has excell. HO frt. cars, some super-detailed, untouched kits, parts; will trade for S gage *AF* or scale cars or locos. Also has unfinished HOn3 *Montezuma* kits and cars for sale.

KENNETH M. STEMEN, 175 McKinley Rd., Grosse Pointe Farms 36, Mich., will sell *Varney* 4-6-2 economy Pac. and tender, little used. Also 2 *Mantua* 0-4-0 camelbacks detailed as per RDG Co.'s photo; all 3 have been used with 6V G-W bulb; bulbs, engineers, firemen incl. Accept bids reasonable offers.

## FLAGSTOPS

*NATIONAL MODEL RR ASSOC.* will hold its convention in Toronto, Ont., Canada, Aug. 21, 22, 23. For program schedule, info., write John S. Petrie, 20 Stanhope Ave., Toronto 6, Ont., Canada. For hotel reservations, write Bordon Lilley, 564 Kingston Rd., Toronto 8, Ont., Canada, stating number of rooms and beds needed, number of people in party. For RR transportation info. write Garth W Bertz N.M.R.A. Traffic Mgr., 4056 Loma Vista Ave Oakland 19, Calif., stating whether you want Pullman or chair car accommodations, the number of people traveling.

PAC. RR. SOC. operating excursion over Coast Line of SP to Lompoc, from Los Angeles, Calif., Aug. 16. Special leaves LA Union Sta. 7:45 a.m returns 8:30 p.m. Photo stops, tours planned. Fare: $10.90 adults, $5.75 children. For info. and tickets contact Carl Blaubach, Excursion Dir., P O. Box 5279. Metropolitan Sta., Los Angeles 55, Calif.

NRHS Annual Convention in St. Louis, Mo. on Labor Day weekend, Sept. 5-7, Hotel Jefferson. Many tours planned incl. Term RR Assn of St. Louis, union station, interlocking tower; visit to Museum of Transport in Kirkwood; trip on Ill. Term. Ry.'s interurban from St. Louis to Springfield, Ill.; inspection tour of Springfield engine terminal. Activities tickets: $13.25. For tickets and details write: Vitaly V. Uzoff, Sec., 3319 Utah Ave., Louisville 15, Ky.


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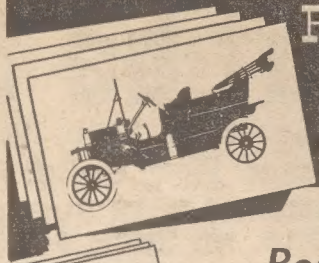

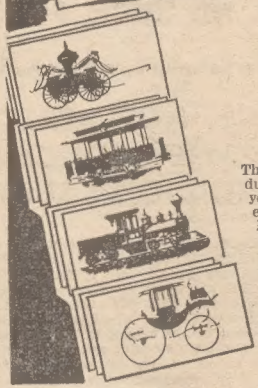

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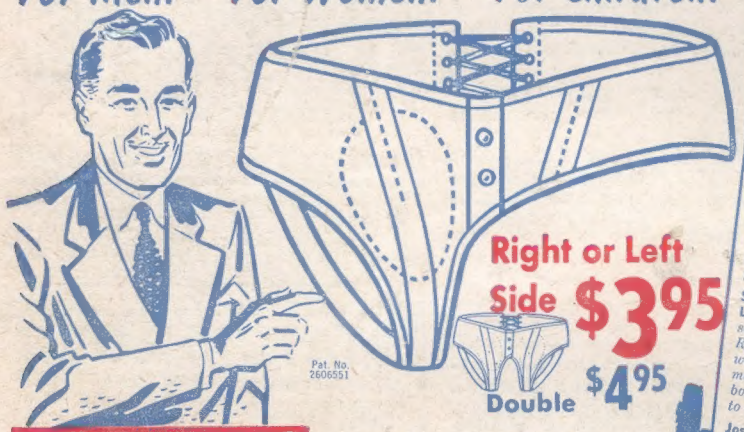

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